# INTRODUCTION

This manual contains detailed instructions on the operation and maintenance of this copier. To get maximum versatility from this copier, all operators should carefully read and follow the instructions in this manual. Please keep this manual in a handy place near the machine.

Please read the next section before using this copier. It contains important information related to USER SAFETY and PREVENTING EQUIPMENT PROBLEMS.

# SAFETY INFORMATION

When using your copier, the following safety precautions should always be followed.

## Safety During Operation

In this manual, the following important symbols are used:

> ⚠ ***WARNING: Ignoring this warning could cause serious injury or even death.***
>
> ⚠ ***Caution: Ignoring this caution could cause injury or damage to property.***

## Examples Of Indications

⚠ ***Symbol ⚠ means a situation that requires you take care.***

***Do NOT carry out the operation represented by the symbol ⃠. This example means "Do not take apart".***

***Symbols ● means you MUST perform this operation. This example means "You must remove the wall plug".***

⚠ ***WARNINGS:***

***Only connect the copier to the power source described on the inside front cover of this manual. Avoid multi-wiring as it could cause an electric shock or a fire.***

***Avoid using an extension cord. Make sure the wall outlet is near the copier and freely accessible so that in event of an emergency it can be unplugged easily.***

***Do not damage, break or make any modifications to the power cord. Do not place heavy objects on it, pull it hard or bend it more than necessary. These actions could cause an electric shock or fire.***

***Do not remove any covers or screws other than those specified in this manual. Some parts of the copier are at a high voltage and could give you an electric shock. When the copier needs to be checked, adjusted or repaired, contact your service representative.***

***Do not take apart or attempt any modifications to this copier. There is a risk of fire, electric shock, explosion or loss of sight.***

***If the copier looks damaged or breaks down, smoke is coming out, there is a strange smell or anything looks unusual, immediately turn off the main power switch then unplug the power code from the wall. Do not continue using the copier in this condition. Contact your service representative.***

***Do not put any metal objects or containers holding water (e.g. vases, flowerpots, glasses) on the copier. If the contents fall inside the copier a fire or electric shock could occur.***

***Do not incinerate used toner or toner containers. Toner dust might ignite when exposed to an open flame. Dispose of the used toner containers according to local regulations for plastics.***

***If any metal, liquid or foreign matter falls into the copier, turn off the main switch and unplug the main power cord. Contact your service representative. Do not keep using the copier with a fault or defect.***

***Do not plug or unplug the power cord with wet hands or an electric shock might occur.***

***Cautions:***

***When you move the copier, unplug the power cord from the wall outlet to avoid fire or electric shock.***

***When you pull out the plug from the socket, grip the plug to avoid damaging the cord and causing fire or electric shock.***

***Keep the copier away from humidity and dust. A fire or an electric shock might occur.***

***Do not place the copier on an unstable or tilted surface. If it topples over it could cause injury.***

***When the copier will not be used for long time, unplug the power cord.***

***If you use this copier in a confined space, make sure there is a continuous air turnover.***

***When removing misfed paper, do not touch the fusing section because it could be very hot.***

***This copier has been tested for safety using this supplier's parts and consumable. We recommend you only use these specified supplies.***

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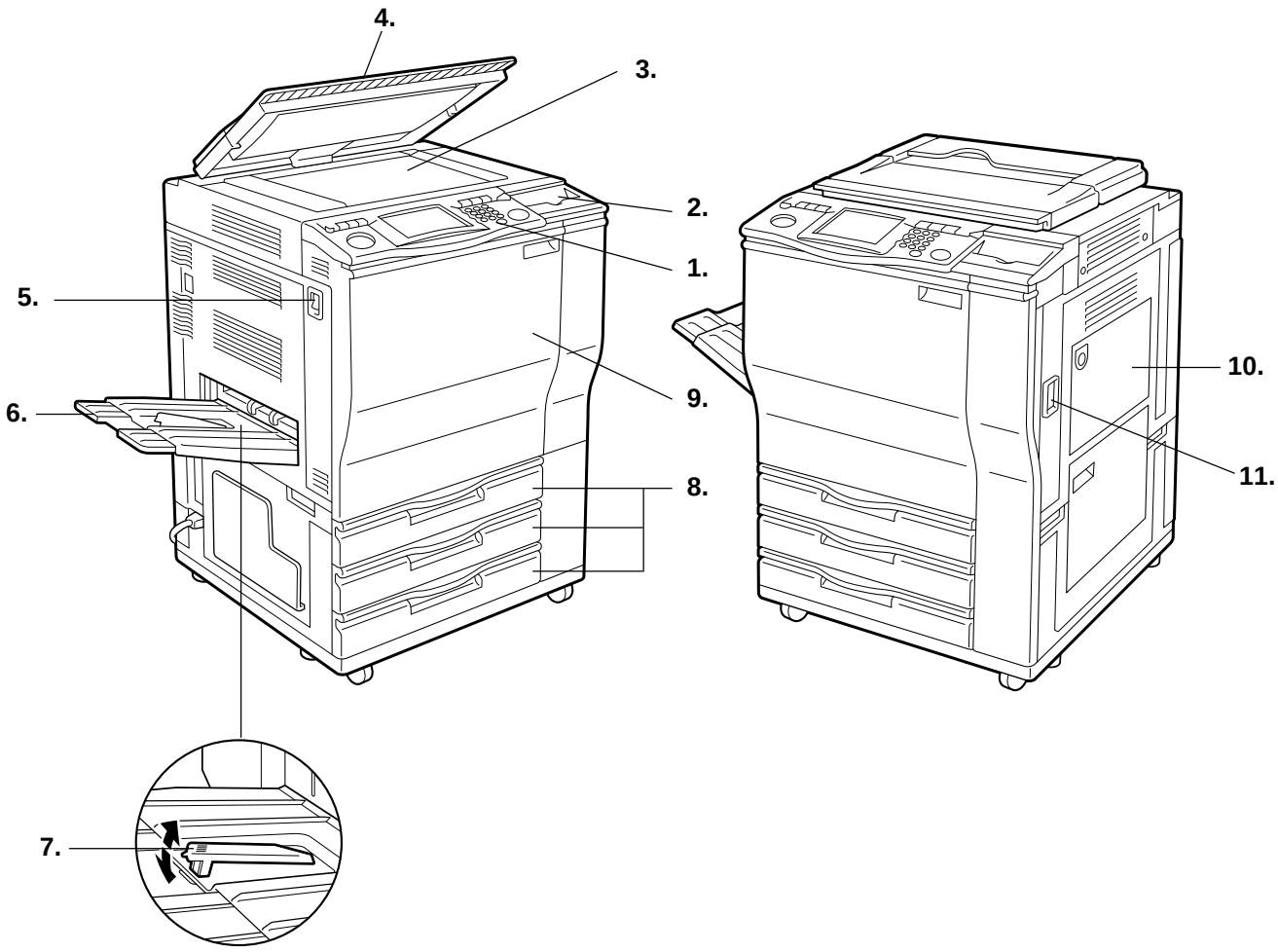
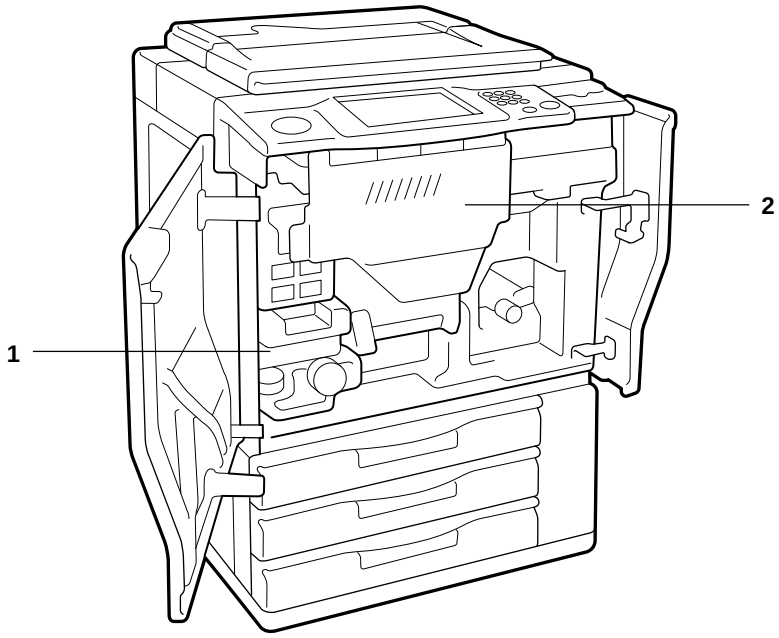
# WHERE IT IS & WHAT IT IS

# COPIER EXTERIOR




| | |
|---|---|
| **1. Operation panel** | Operator controls and indicators are located here. |
| **2. Editor pen holder** | Place the editor pen here when you don't use it. |
| **3. Exposure glass** | Position originals here face down for copying. |
| **4. Platen cover** | Lower this cover over originals for copying. |
| **5. Main switch** | Switches the copier between on and stand-by conditions. ("Stand-by" means that the anticondensation heaters are on.) |
| **6. Copy tray** | Completed copies are delivered here. |
| **7. Stopper** | When you copy onto thin paper, raise this to prevent curling. |
| **8. 500-sheet tray (Trays 1~3)** | Each tray can hold 500 sheets. ☞ See page 117. |
| **9. Front door** | Open to access the inside of the copier. |
| **10. Bypass tray** | Use to copy onto OHP transparencies, thick paper and other non-standard copy paper. |
| **11. Key counter holder** | A key counter may be installed here as an option. |

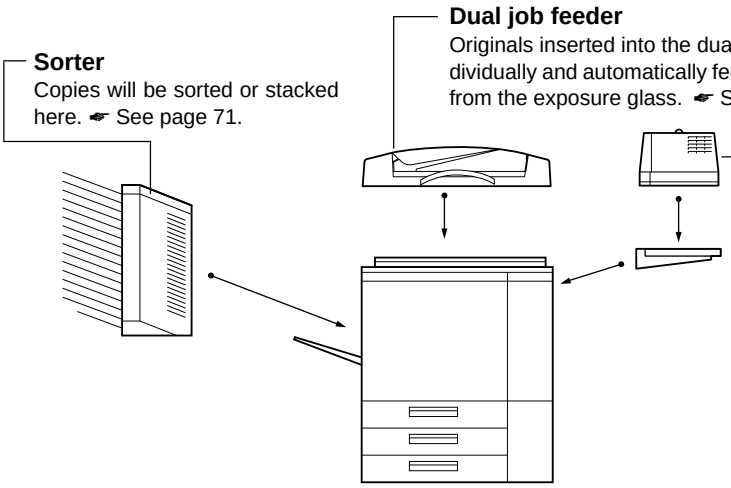
# COPIER INTERIOR




| | |
|---|---|
| **1. Fusing unit** | Fuses the copy image to the paper. When accessing the inside of the copier, use caution. This unit may be very hot. |
| **2. Toner unit** | Toner bottles are in this unit. Replace the toner bottle when the copier instructs you to add toner. |

# OPTIONS

This copier can be provided with the following options:



**Dual job feeder**
Originals inserted into the dual job feeder are individually and automatically fed onto and removed from the exposure glass. ☛ See page 24.

**Sorter**
Copies will be sorted or stacked here. ☛ See page 71.

**Projector unit**
Use to copy films. ☛ See page 139.

Other options: key counter

# OPERATION UNIT

**Brightness knob**
You can change the brightness of the display.

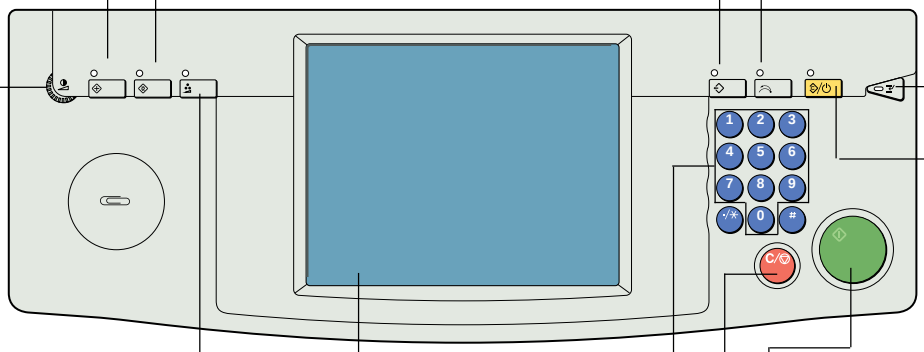
**Special Accessory key**
Press to use optional equipment such as the projector unit. ☛ See page 139.

**User Tools key**
Press to change the default setting. ☛ See page 125.

**Recall key**
Press to recall the previously selected copy jobs. ☛ See page 43.

**Interrupt key**
Press to make interrupt copies during a copy run. ☛ See page 42.

**Program key**
Press when storing copy job settings. ☛ See page 44.



**Adjustment/Memory key**
Press to adjust the image or color balance, or to make user colors. ☛ See page 75.

**Touch panel display**
You can see the operation status and messages here. ☛ See page 21.

**Number keys**
Use to enter the desired number of copies. They are also used to enter data for selected functions.

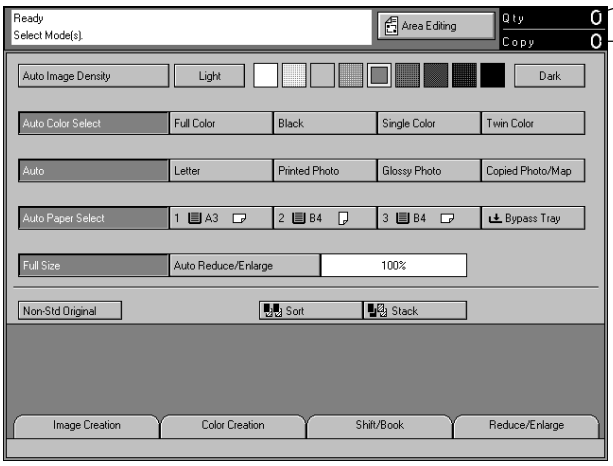
**Clear Modes/Stand by key**
Press to clear the copier of previously entered settings and modes. Hold down for more than 3 seconds to enter the stand by mode. In stand by mode, the touch panel display turns off. Press this key again to use the touch panel display. ☛ See page 41.

**Start key**
Press to start copying.

**Clear/Stop key**
Press to cancel the copy number entered. While copying, press to stop copying. This key is also used to clear data for selected functions.

# Touch Panel Display

## Initial display




Total number of copies to make

**COPY COUNTER**

Counts number of copies made so far.

❒ You can select whether the copy counter counts up (counter up) or counts down (counter down). If you want to change the setting, contact your service representative.

This machine's features are accessed by simply touching the name of the feature and following the instructions that come up on the display.

❒ Regarding detailed information about each key and function, ☛ see page 9.

❒ For how to use the touch panel display, ☛ see page 21.

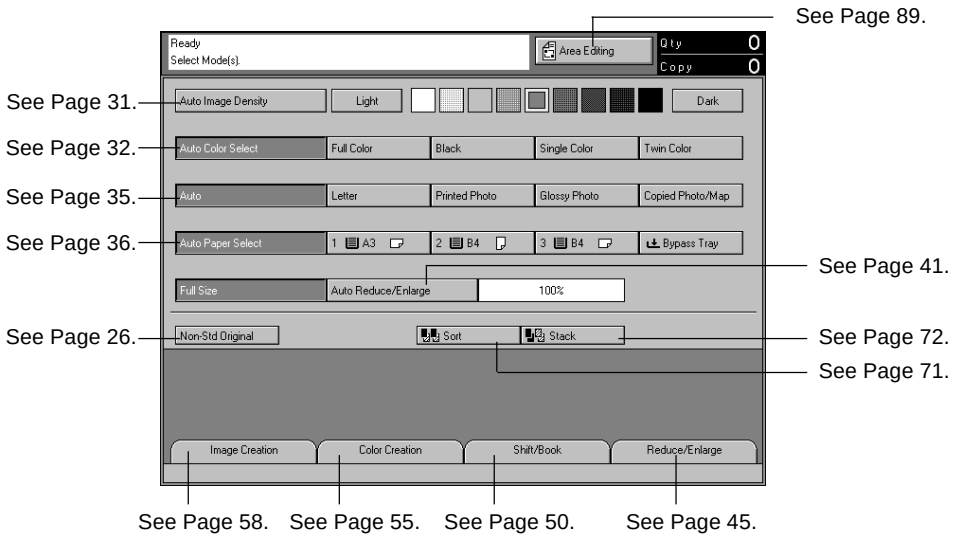
# WHAT YOU CAN DO WITH THIS COPIER

# DIFFERENCES BETWEEN EDIT TYPE AND BASIC TYPE

This machine comes in two versions. Refer to the table below for features available on your machine.

| Functions | | Edit type | Basic type |
|---|---|---|---|
| Copy Image Density Adjustment (Auto/Manual) | | ✓ | ✓ |
| Auto Color Selection | | ✓ | ✓ |
| Full Color | | ✓ | ✓ |
| Black | | ✓ | ✓ |
| Single Color | | ✓ | ✓ |
| Twin Color | | ✓ | ✓ |
| Original Image Type Selection | | ✓ | ✓ |
| Paper Selection (Auto/Manual) | | ✓ | ✓ |
| Reducing/ Enlarging | Preset R/E | ✓ | ✓ |
| | Zoom | ✓ | ✓ |
| | Size Magnification | ✓ | ✓ |
| | Directional Size Magnification | ✓ | ✓ |
| | Poster Mode | ✓ | ✓ |
| Shift/Book | Centering/Cornering | ✓ | ✓ |
| | Margin Adjustment | ✓ | ✓ |
| | Erase | ✓ | ✓ |
| | Single Copies | ✓ | ✓ |
| Color Creation | Color Conversion | ✓ | ✓ |
| | Color Erase | ✓ | ✓ |
| | Color Background | ✓ | ✓ |
| Image Creation | Outline | ✓ | ✓ |
| | Positive/Negative | ✓ | ✓ |
| | Shadow | ✓ | ✓ |
| | Mirror | ✓ | ✓ |
| | Slanted | ✓ | ✓ |
| | Image Repeat | ✓ | ✓ |
| | Image Overlay | ✓ | – |
| Color Adjust- ment/Memory | User Color Memory | ✓ | ✓ |
| | Single Color Adjustment | ✓ | ✓ |
| | Color Balance Adjustment | ✓ | ✓ |
| | Color Balance Sample | ✓ | ✓ |
| | Image Adjustment | ✓ | ✓ |
| Area Editing | | ✓ | – |
| Interrupt Copying | | ✓ | ✓ |
| Recall | | ✓ | ✓ |
| Auto Start | | ✓ | ✓ |
| Program | | ✓ | ✓ |
| Auto Reduce/Enlarge | | ✓ | ✓ |
| Bypass Feed Copying | | ✓ | ✓ |
| Duplex Copying | | ✓ | ✓ |
| Default Setting | | ✓ | ✓ |
| User Tools | | ✓ | ✓ |
| Display Color | | Full color | Black & White |

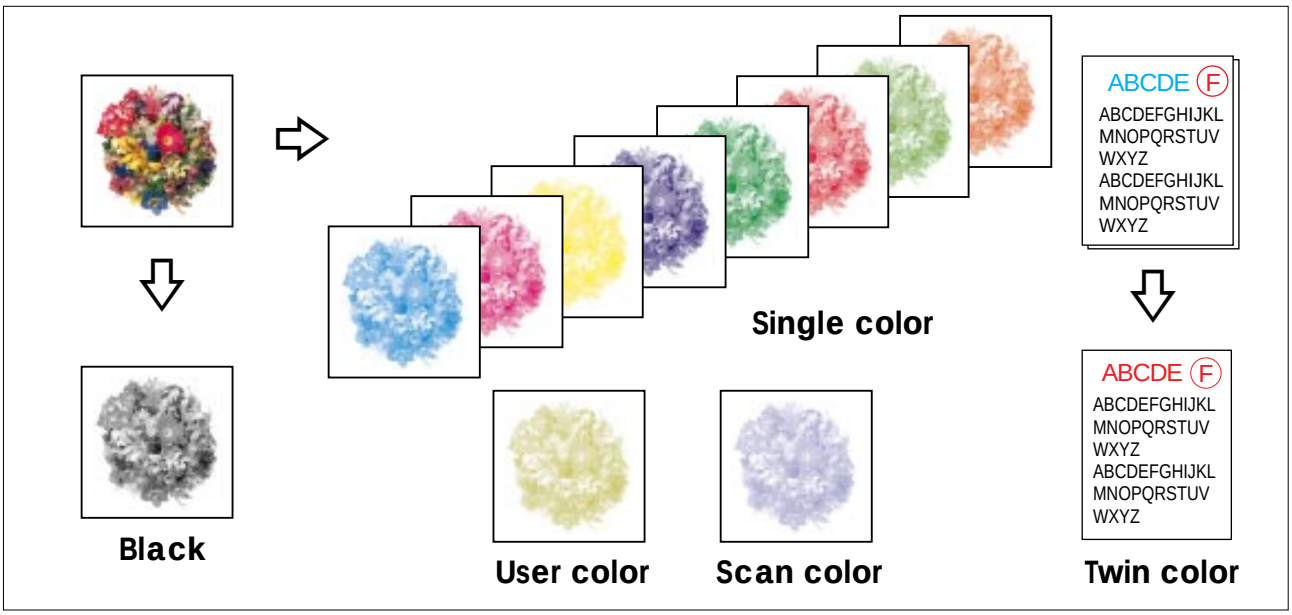
# FUNCTION SUMMARY




## Selecting The Color

☛ See page 32.

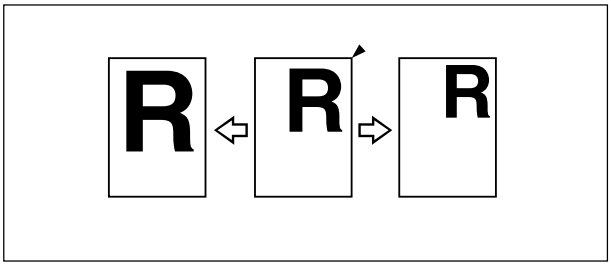
### Full color



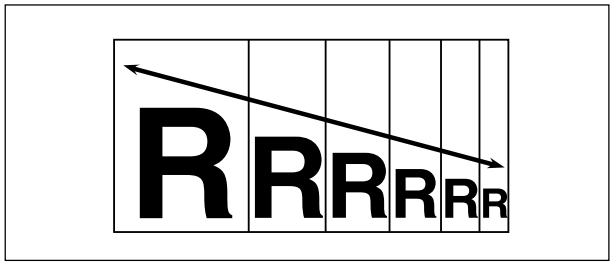
# Reducing And Enlarging

☛ See page 45.

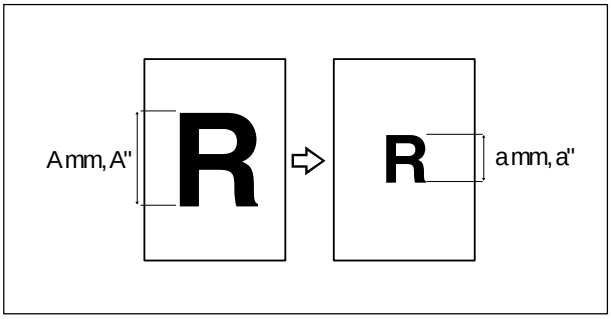
### Reducing and enlarging using preset ratios (Preset R/E)



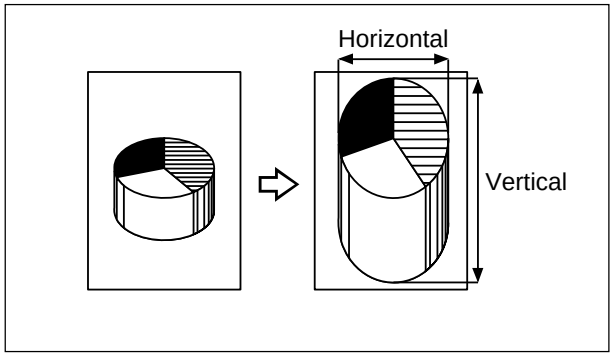

### Reducing and enlarging in 1% steps (Zoom)



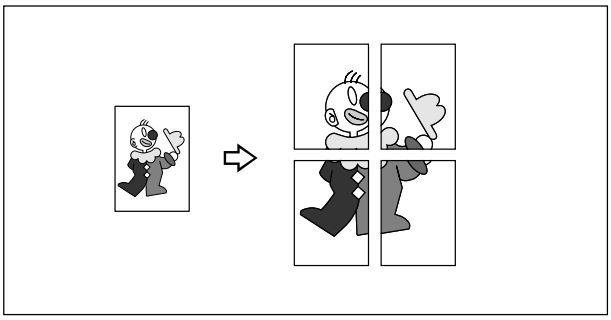

### Fitting the original to a copy of a different size (Size Magnification)




### Reducing and enlarging with independent ratios for vertical and horizontal directions (Directional Size Magnification)



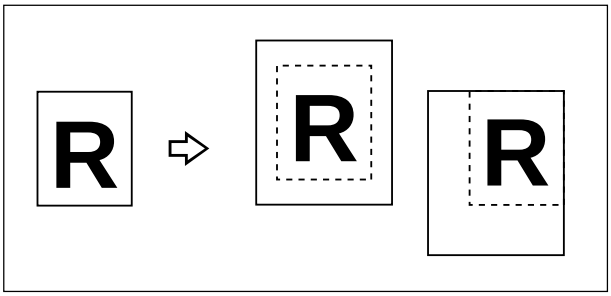

### Enlarging the complete image onto several sheets (Poster Mode)



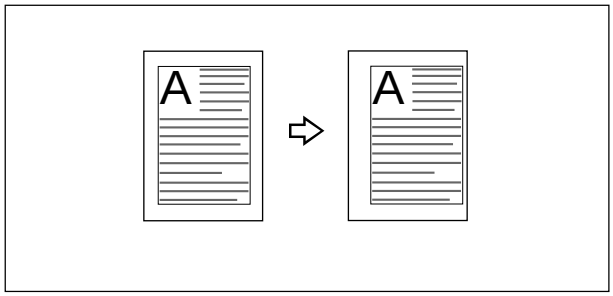
## Shifting The Image (Shift/Book)

☛ See page 50.

### Centering/Cornering




### Adding margins for binding (Margin Adjustment)

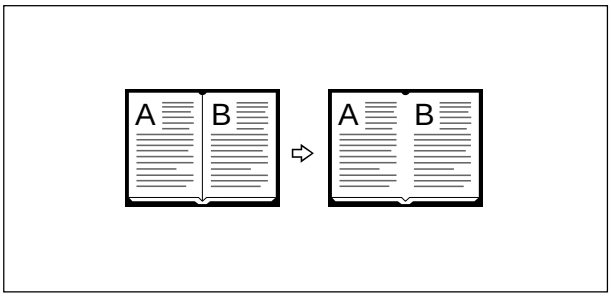




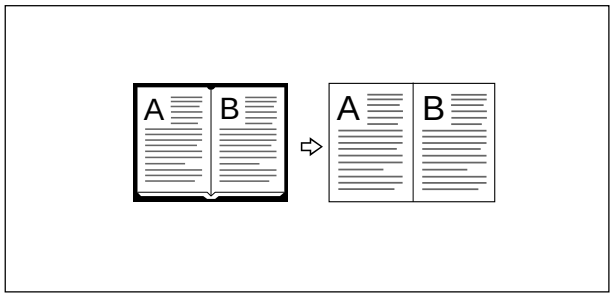

## Erasing Parts Of The Copy Image (Shift/Book)

☛ See page 51.

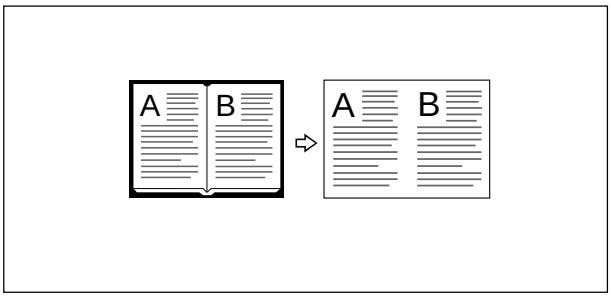
### Erasing the center margin of the original image (Erase Center)




### Erasing the surrounding area of the original image (Erase Border)



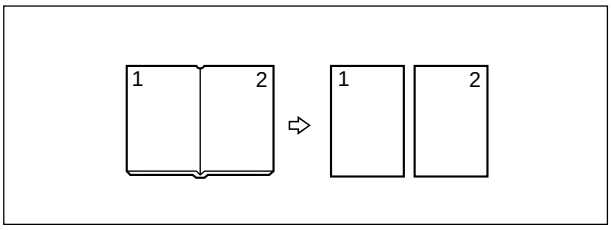

### Erasing the center margin and surrounding area of the original image (Erase Center And Border)



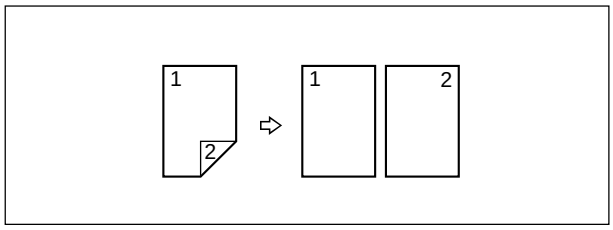
# Making Single Copies (Shift/Book)

☛ See page 52.

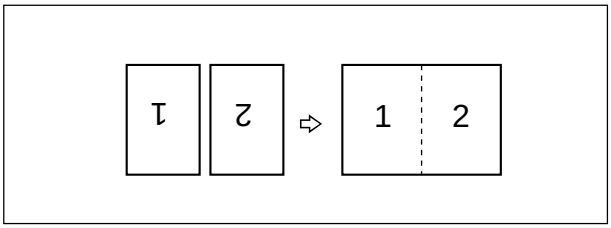
### From book original to 2 one-sided copies (Book → 1Sided)




### From two-sided original to 2 one-sided copies (2 Sided → 1 Sided)



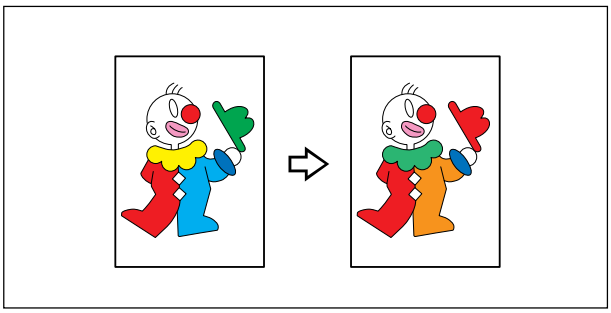

### Combining two originals (Combine)



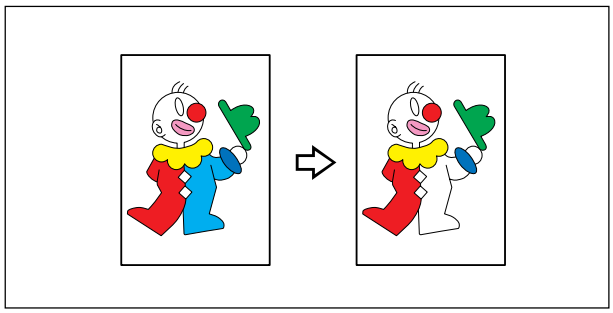

# Color Creation

☛ See page 55.

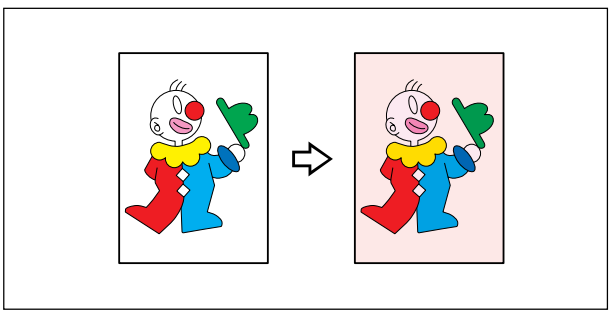
### Converting a selected color into a different color (Color Conversion)



### Erasing the selected color (Color Erase)



### Making copies with a color background (Color Background)

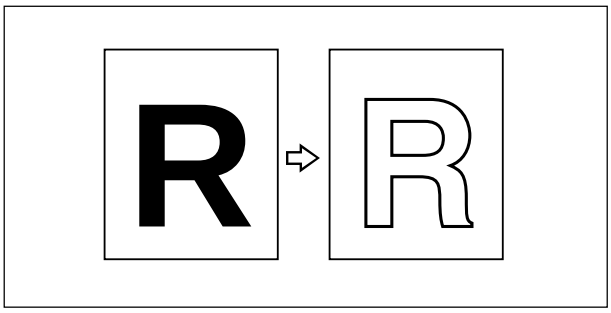


# Image Creation

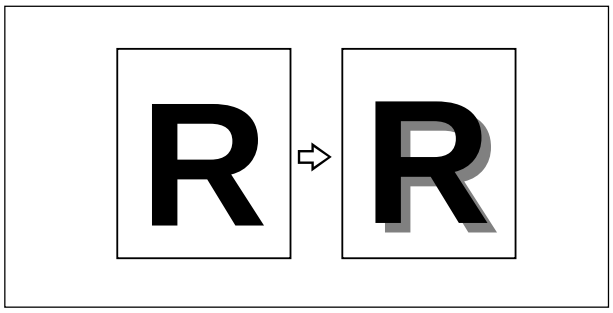
☛ See page 58.



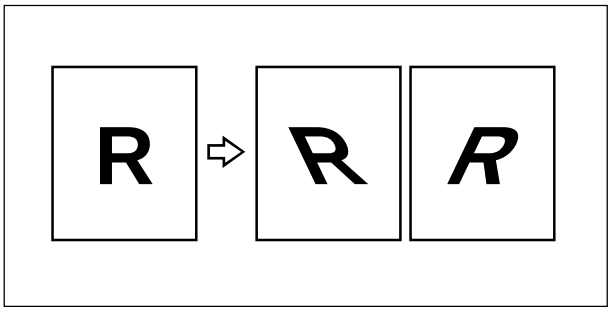
## Copying only the outline of the image (Outline)



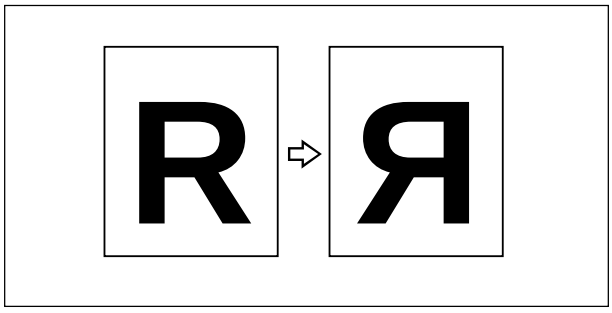
## Adding a shadow around the copy image elements (Shadow)



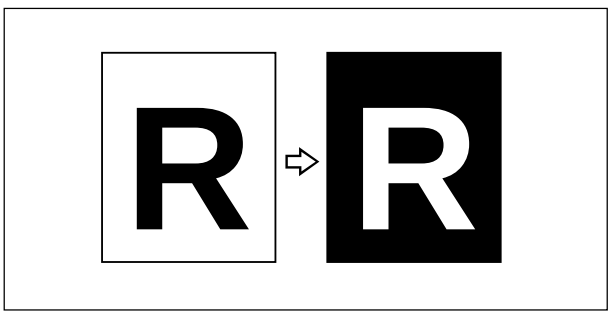
## Slanting the copy image (Slanted)



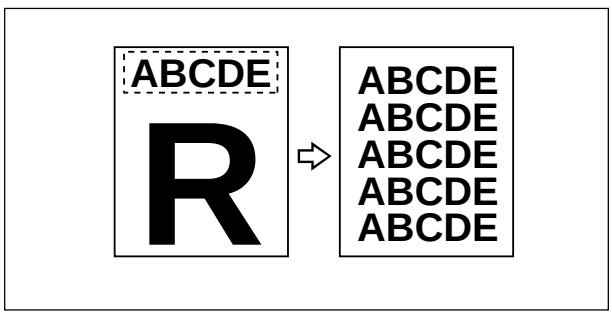
## Making a mirror image copy of the original (Mirror)



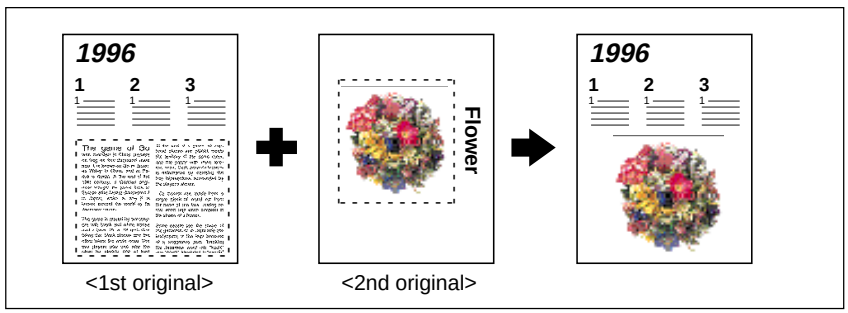
## Copying the original image in complementary colors (Positive/Negative)



## Copying a part of the original image repeatedly (Repeat)



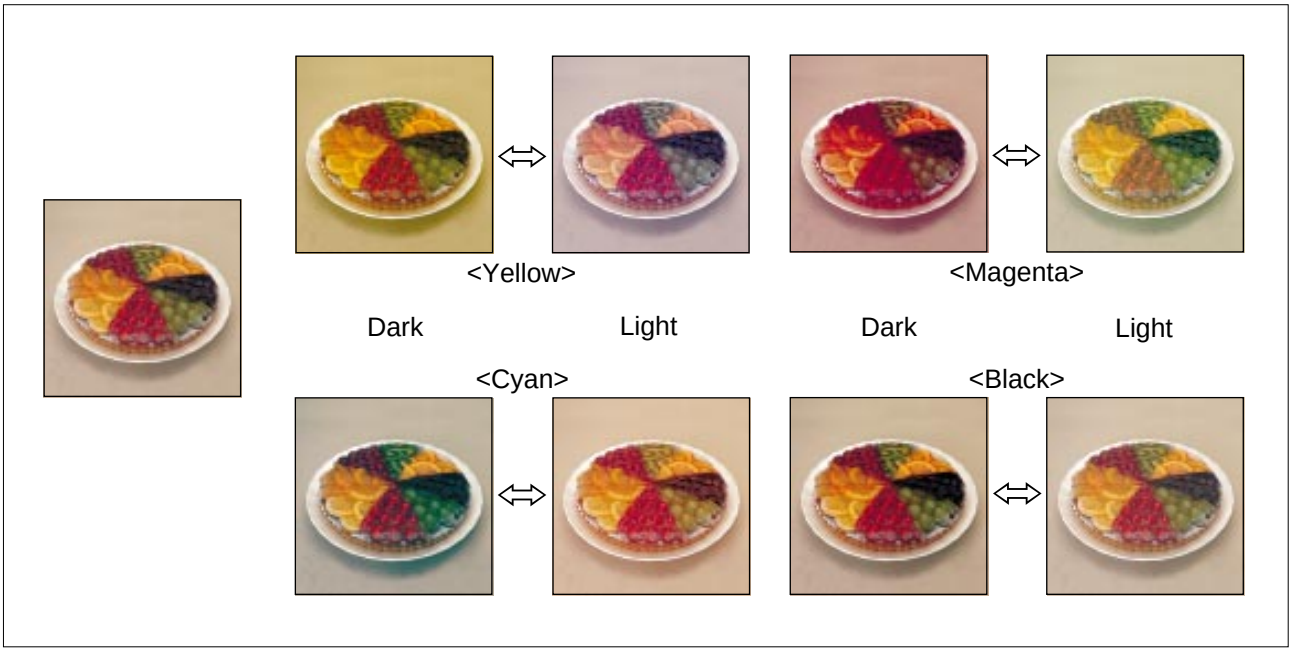

## Merging Images (Image Overlay)



## Adjusting And Storing The Color Balance (Color Balance)

☛ See page 76.

### Adjusting the color balance (Color Balance Adjustment)

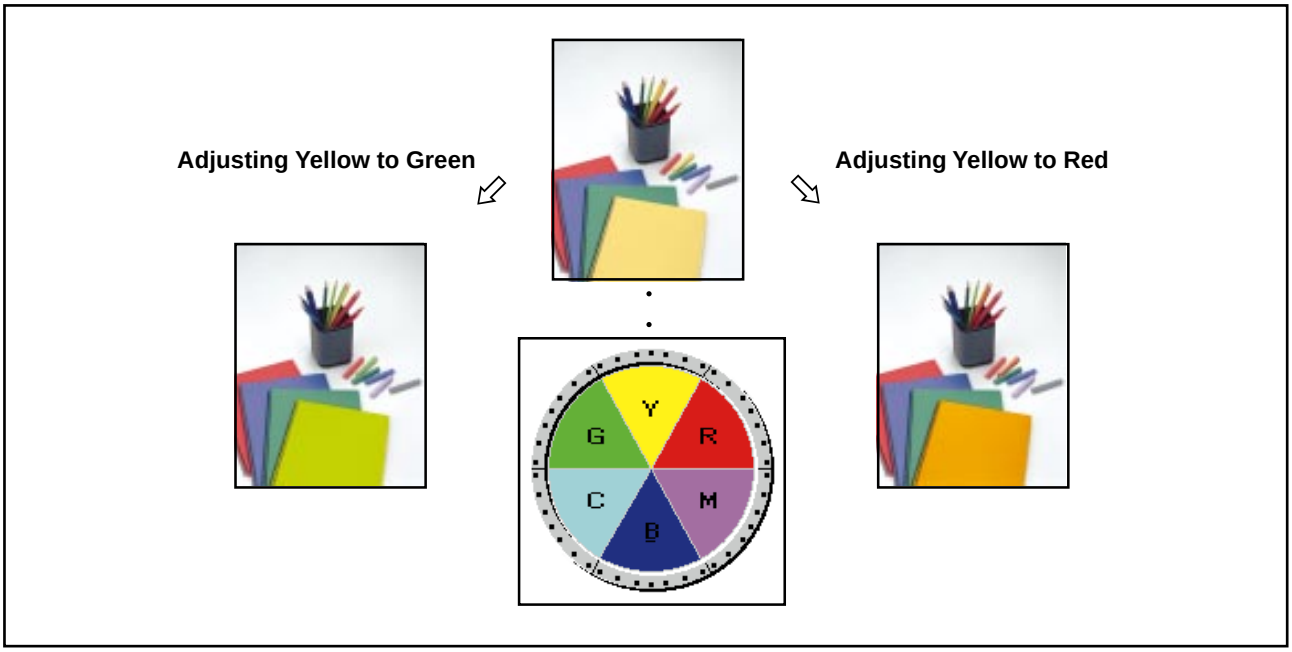



### Storing and recalling the color balance (Color Balance Memory)

### Sampling the color balance (Color Balance Sample)

## Adjusting A Single Color (Single Color Adjustment)

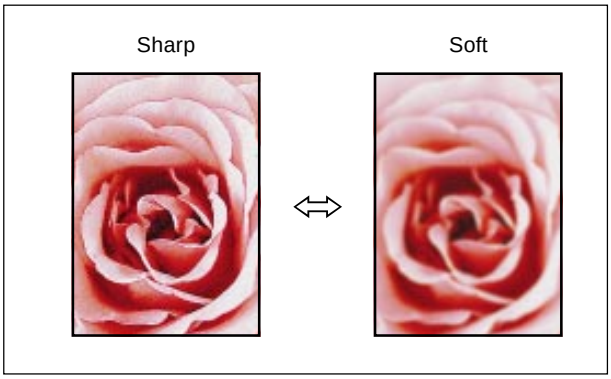
☛ See page 82.



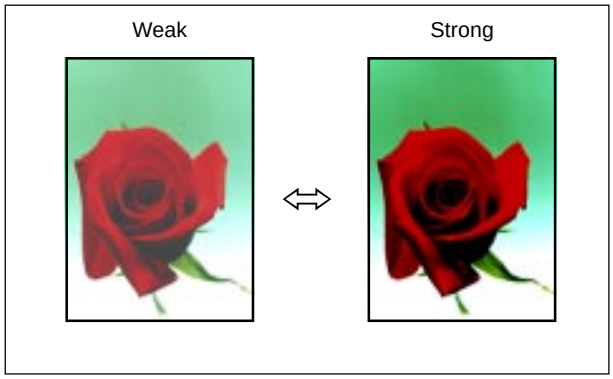
# Image Adjustment

☛ See page 83.

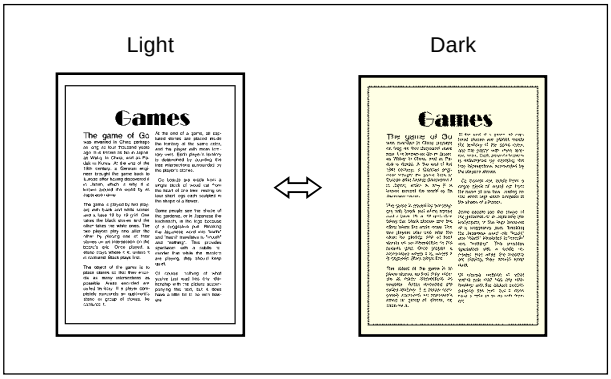
## Sharp/Soft



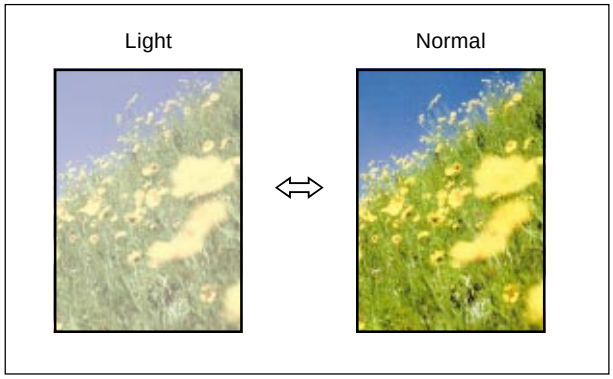

## Contrast




## Background density control




## Pastel color

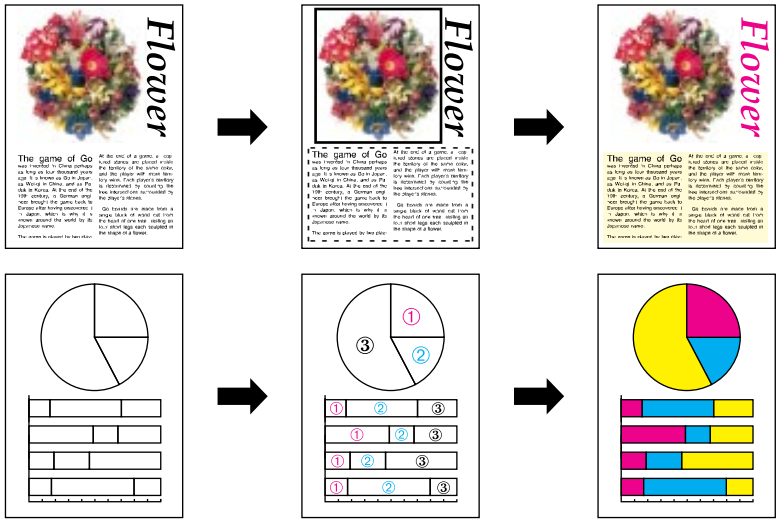



# Storing User Colors (User Color Memory)

☛ See page 85.

## Area Editing (Only for Edit type)

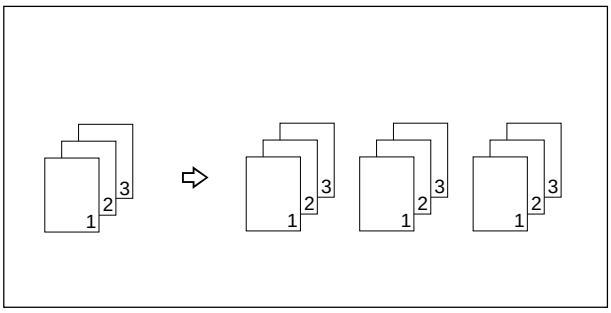
☛ See page 89.



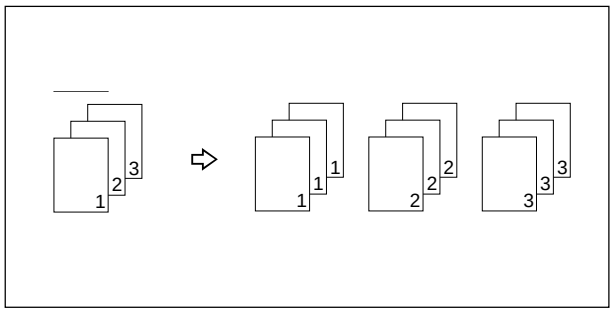

## Finishing (Option)

☛ See page 71.

### Sorting into sets (123, 123, 123) (Sort)



### Stacking together all copies of a page (111, 222, 333)



## Using The Projector (Option)

☛ See page 139.

# COLOR SAMPLE CHART

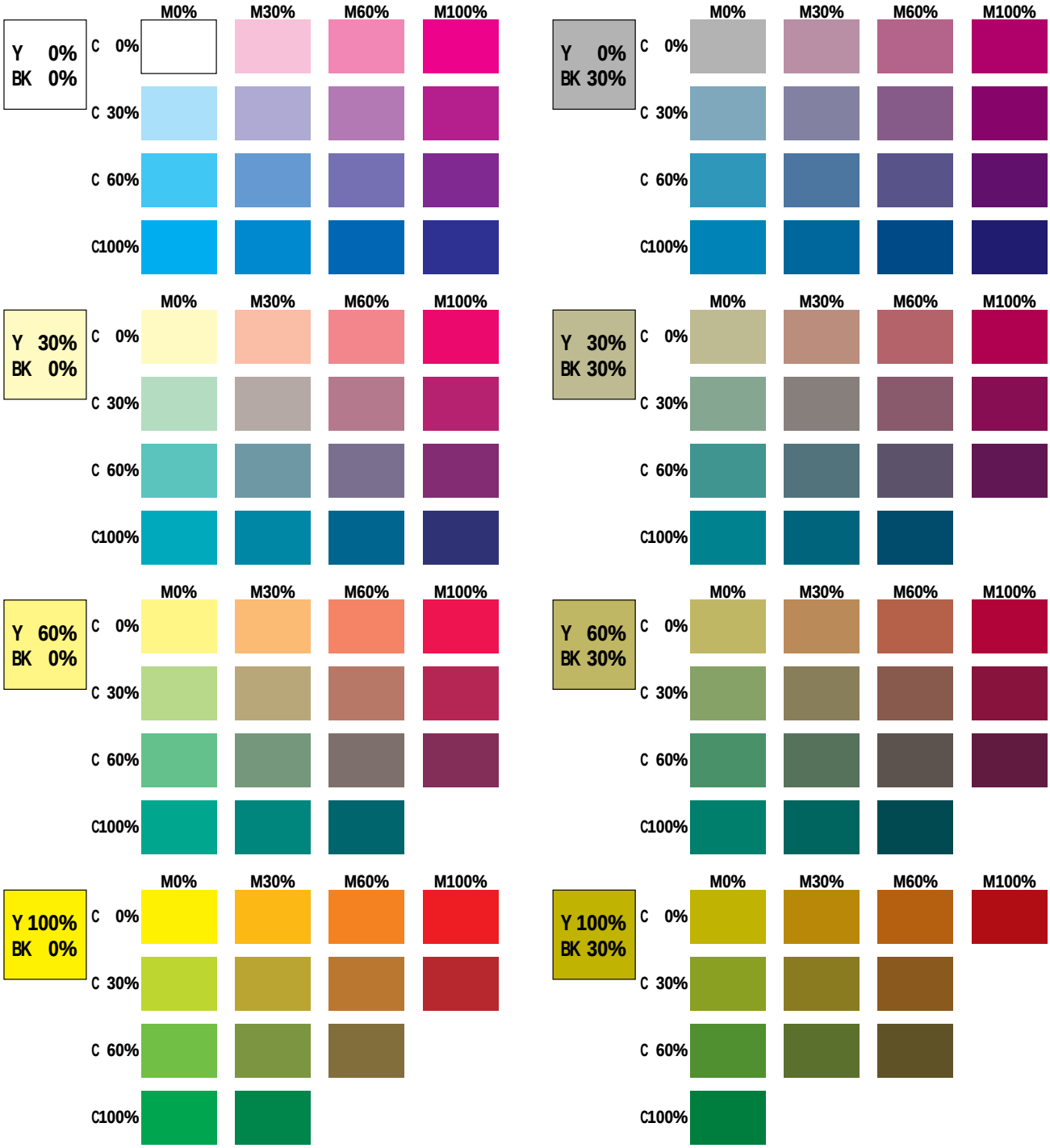
This is the single color sample (Letter mode).

***Note:*** *The color sample might differ somewhat from actual copies due to printing effects.*

## COLOR SAMPLE CHART

This is the User Color sample. You can mix the basic colors to make your own colors (User Color).

***Note:*** *The color sample might differ somewhat from actual copies due to printing effects.*

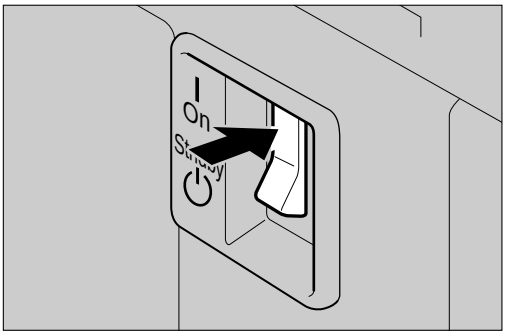


# BASICS

# STARTING THE COPIER

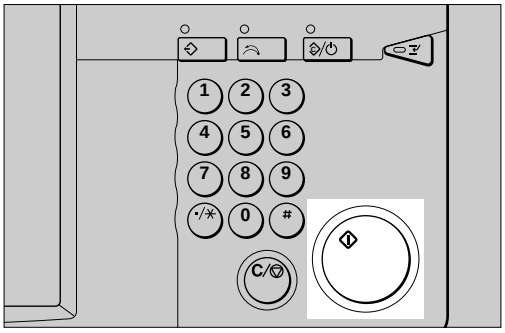
## When The Main Switch Is In The Stand-by Position

1 Turn on the main switch.




2 Wait for the copier to warm-up. During the warm-up period (about 8 minutes), the **Start** lights red.

3 After warm-up, the copier goes into ready condition and the **Start** key lights green.




## When The Touch Panel Display Is Blank And The Main Switch Is On

The copier is under the stand by condition. Press the **Clear Modes/Stand by** key to return to the ready condition.

❒ Regarding the stand by condition, ☛ see page 41.

## When The Copier Is Set For User Codes

Input your user code (6 digits) using the **Number** keys. Then touch the **[#]** key.

❒ To prevent others from making copies using your user code, press the **Clear/Stop** and **Clear Modes/Stand by** key simultaneously after copying.

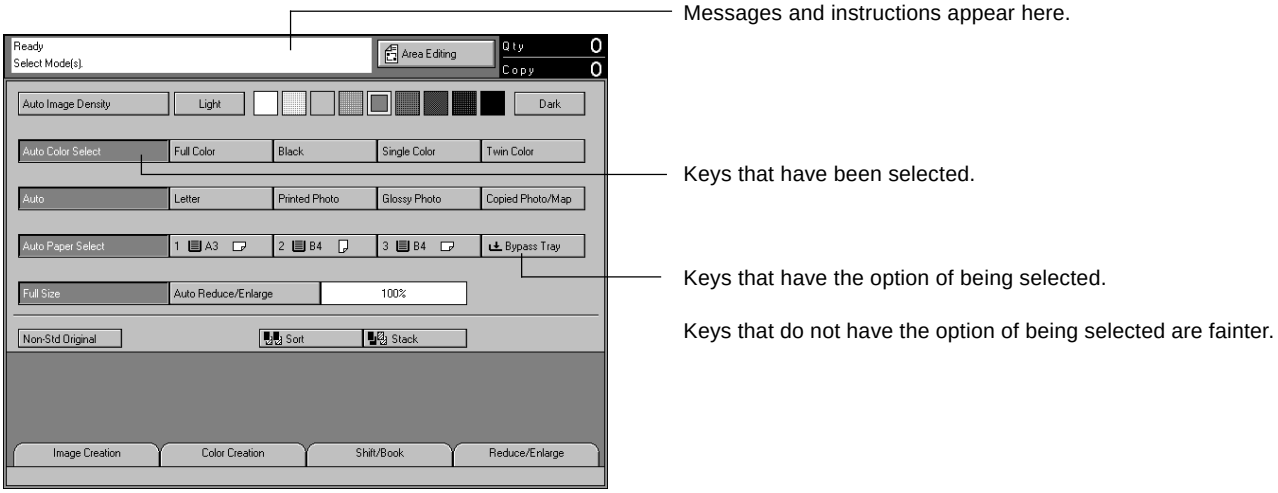
❒ For details about user codes, ☛ see page 132.

❒ If you input the wrong user code, press the **Clear/Stop** key and input the code again.

# USING THE TOUCH PANEL DISPLAY

## Selecting Functions

On the touch panel display, you can find keys, instructions and messages. By touching keys on the display, you can select or deselect functions, and enter data for the selected modes. If you make a mistake and wish to clear the current settings, press the **Clear Modes/Stand by** key.




Messages and instructions appear here.

Keys that have been selected.

Keys that have the option of being selected.

Keys that do not have the option of being selected are fainter.

In this manual, keys on the display are indicated as follows:

Example:

Key on the display: Auto Paper Select

In the manual: **[Auto Paper Select]** key

***Note**: Do not press the touch panel display with any hard or sharp object. Always use the editor pen.*

## Entering Numbers

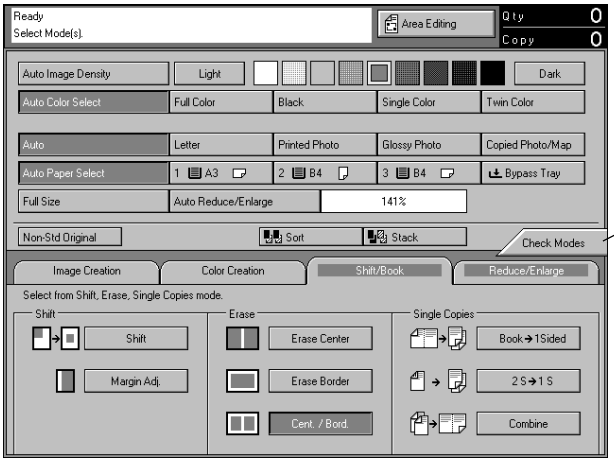
When the display prompts you to enter a number, type in the number with the **Number** keys and touch the **[#]** key on the display to accept it.

Should you make a mistake:

- If you have not touched the **[#]** key yet, touch the **[Clear]** key and then re-enter it. If there is not the **[Clear]** key on the display, press the **Clear/Stop** key.
- If you have already touched the **[#]** key, touch the item you wish to change on the display and re-enter the number with the **Number** keys. Touch the **[#]** key on the display to accept it.

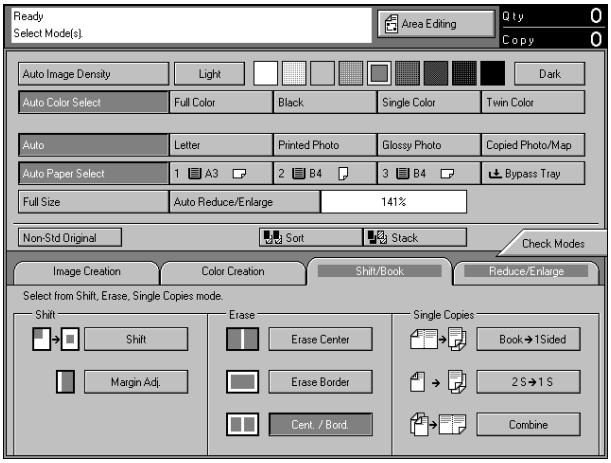
## Checking The Functions You Have Selected

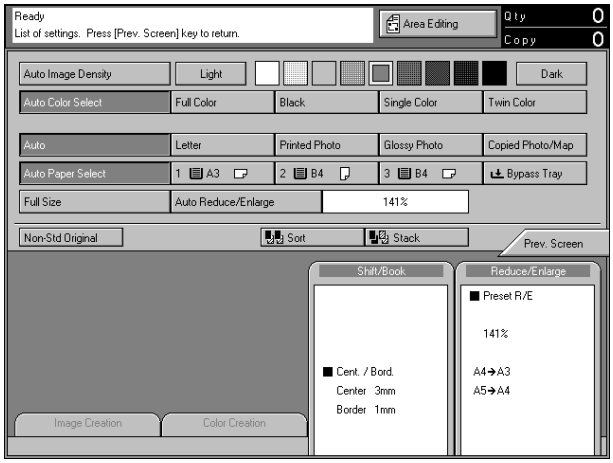
When you set one or more copy settings, the last item you selected will remain on the screen.




**[Check Modes]** key

To check all the settings you have set so far, touch the **[Check Modes]** key.



# ORIGINALS

## Standard Size Paper

The machine will detect paper of the following size and direction as standard size paper:

| Metric version | Inch version |
|---|---|
| A3□, B4□, A4□,□, B5□,□, A5□,□, B6□, 8 1/2"×13" (F4)□, 8 1/2"×11" □ | 11"×17" □, 10"×14" □, 8 1/2"×14" □, 8 1/2"×13" (F4)□, 8"×13" □, 8 1/2"×11" □,□, 5 1/2"×8 1/2"□,□ |

## Recommended Originals

❒ Regarding originals that the dual job feeder can handle, ☛ see page 169.

## Non-recommended Originals For The Dual Job Feeder

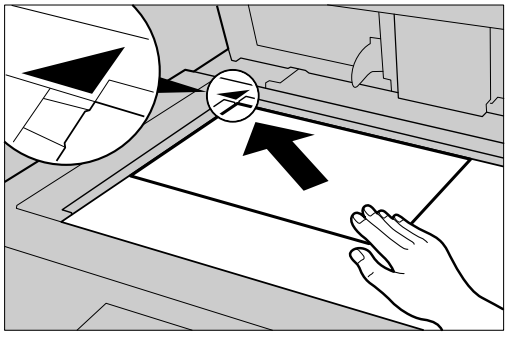
***Note**: The following types of originals are not recommended for use with the dual job feeder. Place them directly on the exposure glass.*

- ❒ Originals thicker than 128 g/m², 34 lb
- ❒ Originals thinner than 40 g/m², 11 lb
- ❒ For originals between 40 and 52 g/m², 11 and 14 lb, the dual job feeder must be set to Thin paper mode. ☛ See page 130.
- ❒ Originals larger than A3, 11" x 17"
- ❒ Originals smaller than B6□, 5 1/2" x 8 1/2"□,□
- ❒ Folded, curled, creased, or damaged originals
- ❒ Mailing labels, or perforated originals
- ❒ Bound, stapled, or clipped originals
- ❒ OHP transparencies
- ❒ Translucent paper
- ❒ Pasted originals
- ❒ Damp originals
- ❒ Sticky originals
- ❒ Wavy originals
- ❒ Originals that are not made from paper
- ❒ Originals written in pencil on both sides, or two-sided carbon originals
- ❒ Thermal fax paper, CRO (camera ready originals) or aluminum foil
- ❒ Books, pamphlets, and booklets



# SETTING ORIGINALS ON THE EXPOSURE GLASS

1. Lift the platen cover or the optional dual job feeder.
2. Set the original face down on the exposure glass. The original must be aligned with the rear left corner.



3. Lower the platen cover or the optional dual job feeder.

# SETTING A STACK OF ORIGINALS IN THE DUAL JOB FEEDER (ADF, ARDF)

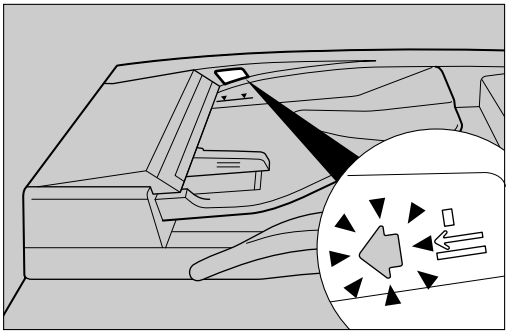
You can insert a stack of originals of the same size into the dual job feeder. These originals are individually fed onto and removed from the exposure glass.

❒ Some originals are unsuitable for the dual job feeder. ☛ See page 23.

❒ You can still use originals that are not recommended for this mode. First make a set of copies of the originals by positioning them directly on the exposure glass, then use these copies as originals.

❒ If you want to set originals of different sizes at the same time, use the User Tools. ☛ See page 130.

1. Correct any curl, fold, or crease in the originals before setting the originals.
2. Make sure the **Insert Original** indicator is lit and the exposure glass is clear of originals.

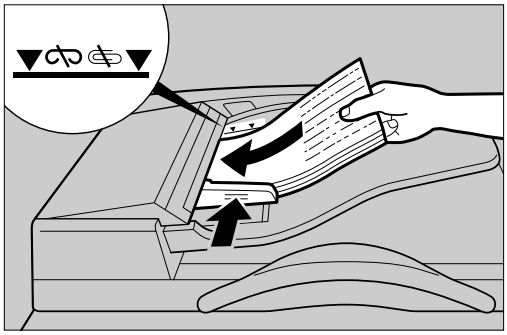


3. Adjust the guide to the original size.
4. Set the originals *face up* into the dual job feeder until the **Insert Original** indicator goes off.

❒ The last page should be on the bottom.

❒ The original guide must touch the front side of the originals.

❒ Do not stack originals above the limit mark.

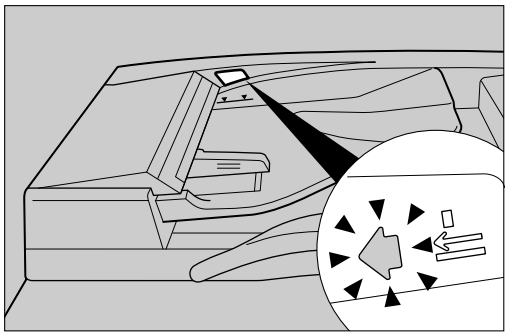


# SETTING ONE ORIGINAL AT A TIME IN THE DUAL JOB FEEDER (SADF)

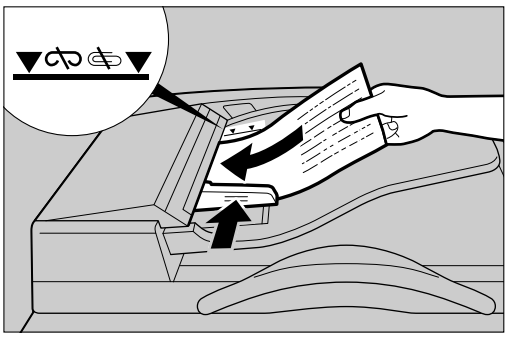
You can insert one original at a time into the document feeder. The original is automatically fed onto and removed from the exposure glass.

- ❒ Do not press down or hold originals after inserting them.
- ❒ While originals are fed from the original table to the exposure glass, do not pull them out.
- ❒ Do not lift the dual job feeder until the original has been completely fed out.

1. Correct any curl, fold, or crease in the originals before setting.
2. Make sure the **Insert Original** indicator is lit and the exposure glass is clear of originals.

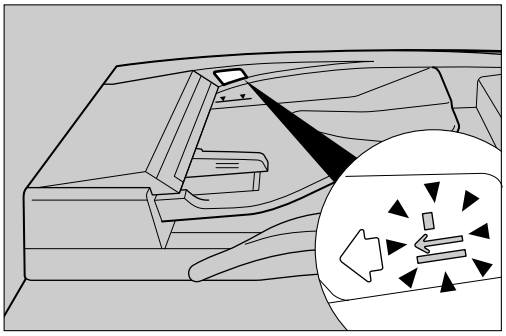


3. Adjust the guide to the original size.
4. Set the original *face up* into the dual job feeder until the **Insert Original** indicator goes off.



- ❒ If you are copying a stack of originals one sheet at a time and you want to keep them in order, start with the last page of the originals.
- ❒ The original guide must touch the front side of the original.

5. Press the **Start** key.
6. While the **Auto Feed** indicator is lit after an original is fed, set the next original. The original is automatically fed and copied.



- ❒ When the **Auto Feed** indicator is lit, the dual job feeder is ready for another original. You can change the time until the mode is cleared with User Tools. ☛ See page 126.

# SETTING NON-STANDARD SIZED ORIGINALS

When copying from non-standard sized originals, enter the original size so that copy is well aligned.

❒ You should set an original on the exposure glass in this function.

❒ About the standard sizes the copier can detect, ☛ See page 23.

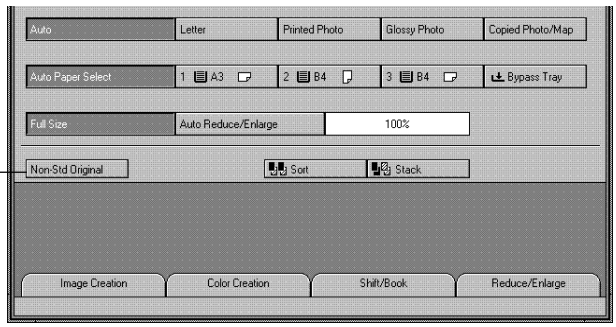
❒ The size that can be entered:

length: 50 ~ 297 mm, 2.0" ~ 11.7"

width: 50 ~ 432 mm, 2.0" ~ 17"

1 Select the copy paper size.

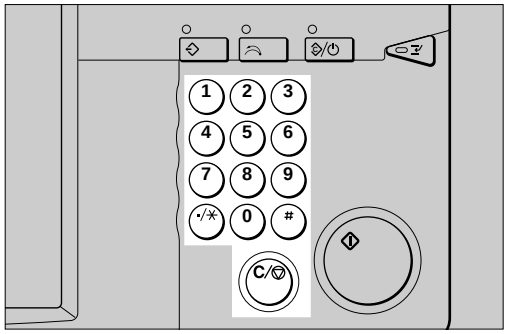
2 Touch the **[Non-Std Original]** key.




**[Non-Std Original]** key

3 Enter the horizontal size, then touch the **[#]** key.

4 Touch the **[V. (Orig).]** key and enter the vertical size. Touch the **[#]** key to accept.




5 Touch the **[Exit]** key.

6 Set your original on the exposure glass, then press the **Start** key.

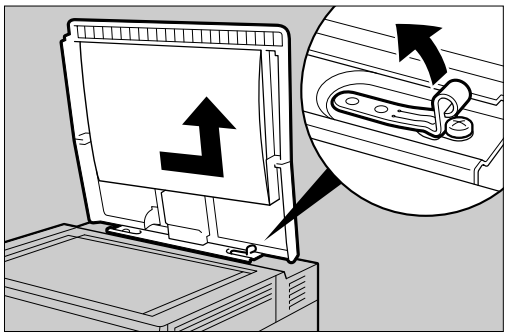
# REMOVING THE PLATEN COVER TO COPY A LARGE ORIGINAL

You can remove the platen cover to copy a large (more than A3, 11" × 17") original.

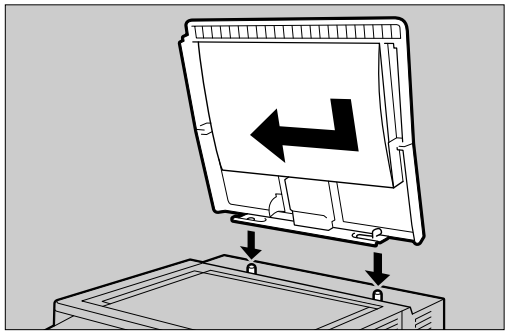
❒ You cannnot remove the dual job feeder.

To unlock the platen cover, slide it to the right while pulling the hook. Lift it out to remove it.

❒ Lift the platen cover with both hands. Place the removed cover on a flat surface such as a desk and where it will not be damaged.



To reset the platen cover, align the pins of the copier and the holes of the platen cover. Then slide the platen cover to the left until it locks.



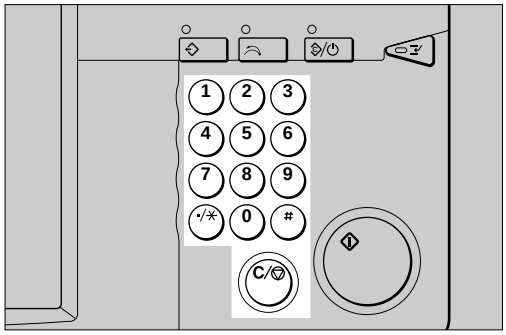
# COPYING

# BASIC OPERATIONS

## One-to-one Copying

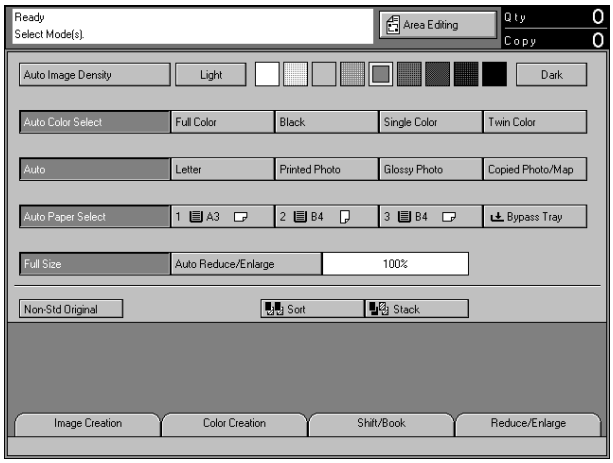
You can make copies that are the same size and the same color as your originals.

1. Set your original on the exposure glass or in the dual job feeder. ☛ See page 23, 24, or 25.
2. Enter the number of copies required using the **Number** keys.



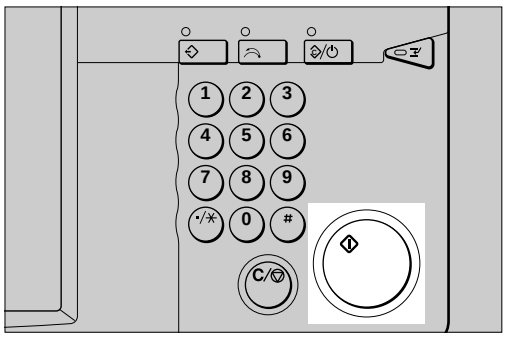
- ❒ To change the number entered, press the **Clear/Stop** key, then enter the new number.

3. Confirm that the **[Auto Color Select]**, **[Auto]**, **[Auto Paper Select]**, **[Full Size]** keys are selected. If not, touch the key.




- ❒ Image Density Adjustment ☛ see page 31.
- ❒ Auto Color Select ☛ see page 32.
- ❒ Auto (Letter/Photo) ☛ see page 35.
- ❒ Auto Paper Select ☛ see page 36.

4. Press the **Start** key.



- ❒ To stop the copier during a multi-copy run, press the **Clear/Stop** key.
- ❒ Press the **Start** key to resume copying, or press the **Clear/Stop** key again to clear the entered copy number.

# Adjusting Copy Image Density

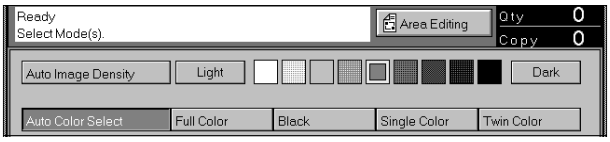
Image density affects the contrast of copies. With these functions you can control the image density so that copies match originals. Make the selection you require then set your originals and press the **Start** key.

## Auto image density

If you select the **[Auto Image Density]** key, the copier automatically controls the image density.

❒ Auto image density and Auto color select cannot be set together.

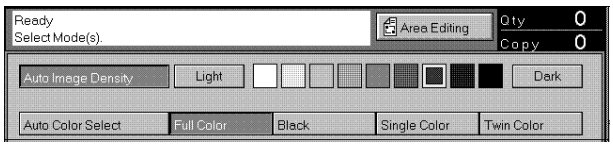
## Manual image density




If you require darker or lighter copies, adjust the image density yourself.

If the **[Auto Image Density]** key is selected, touch it to cancel. Then, touch the **[Light]** (left) key to lower the image density. Touch the **[Dark]** (right) key to increase the image density.

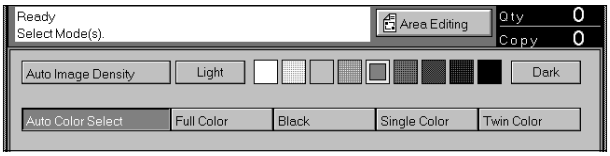
## Combined auto & manual image density




Use when copying originals with a dirty background (such as newspapers). You can adjust the foreground density while leaving the background unchanged.

Just touch the **[Light]** or **[Dark]** key, when **[Auto Image Density]** is selected.

# Selecting The Color




To match the originals and your purpose, you can select the color mode.

Simply make your selection, set your originals and press the **Start** key.

❒ To see the color samples, ☛ see page 9.

❒ Normally the copier uses 4 toners (Yellow, Magenta, Cyan, and Black). You can change this setting so that only 3 colors (Yellow, Magenta, and Cyan) are used. ☛ See page 126.

## Auto color select

The copier automatically detects whether the original has color parts or not. Originals with only black images will be copied in Black mode. Originals with some color areas will be copied in Full Color mode.

❒ The copier may detect some black and white screen images (such as from newspapers) as full color originals. If you copy from a newspaper original, select Black mode.

❒ If you make one copy set of a black original using the dual job feeder, it is recommended to select Black mode. If you choose Auto Color Select mode, the copier will reset the color selection for every original page, taking a long time to complete the job.

## Full color copy

This function makes copies in full color.

❒ You can adjust the overall color tone of copies. ☛ See page 76.

❒ You can adjust the specified color. ☛ See page 82.

## Black copy

This function makes copies in black.

## Single color

This function makes copies in single colors. The colors you can choose for single color copying are as follows.

- **8 standard single colors:**

Yellow, Orange, Red, Magenta, Green, Cyan, Blue, Light-green

- **12 user colors:**

Up to 12 colors can be manually mixed and stored in memory. ☛ See page 85.

- **1 scan color (Only for Edit type):**

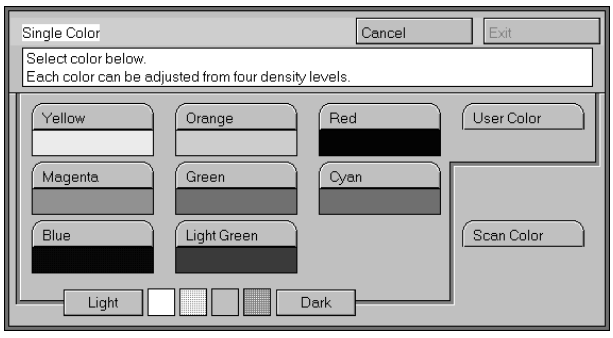
You can scan in a color from an original. ☛ See page 34.

### -Standard single color

1 Touch the **[Single Color]** key.

2 Select the color.

❒ You can adjust the copy image density at this point.



3 Touch the **[Exit]** key.

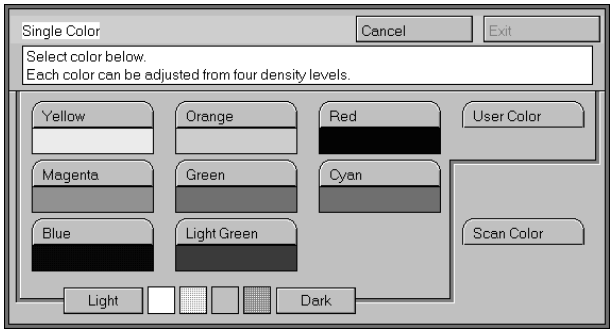
**-User colors**

❒ When Single Color copying, user colors might come out lighter.

❒ The appearance of user colors might vary slightly according to the Image Type you have selected (ex. Photo, Letter, etc.).

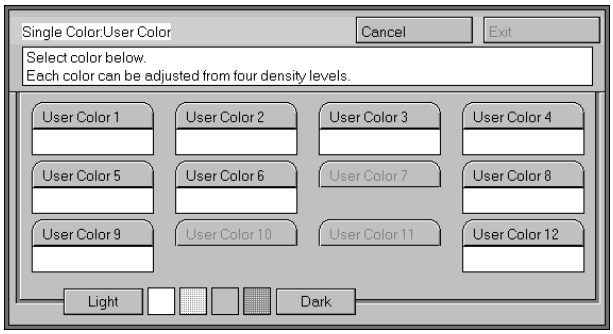
1 Touch the **[Single Color]** key.

2 Touch the **[User Color]** key.




3 Select the color.

❒ You can adjust the copy image density at this point.

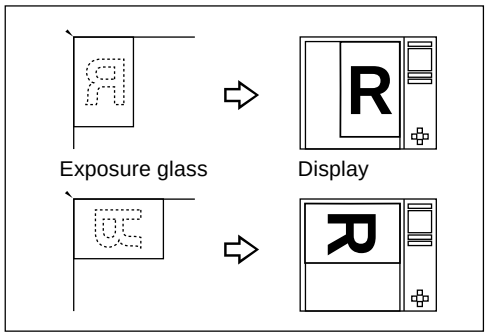



4 Touch the **[Exit]** key.

### -Scan color (Only for Edit type)

❒ The diagram opposite shows the relationships between the position of the original and the orientation of the scanned image on the display.

❒ When Single Color copying, Scan colors might come out lighter.

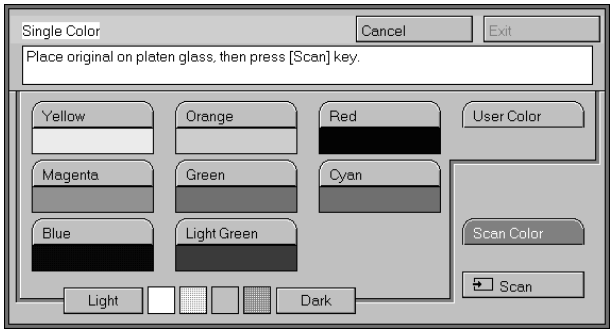



1 Touch the **[Single Color]** key.

2 Touch the **[Scan Color]** key.

3 Set your original, then touch the **[Scan]** key.

❒ The image of the original is displayed.

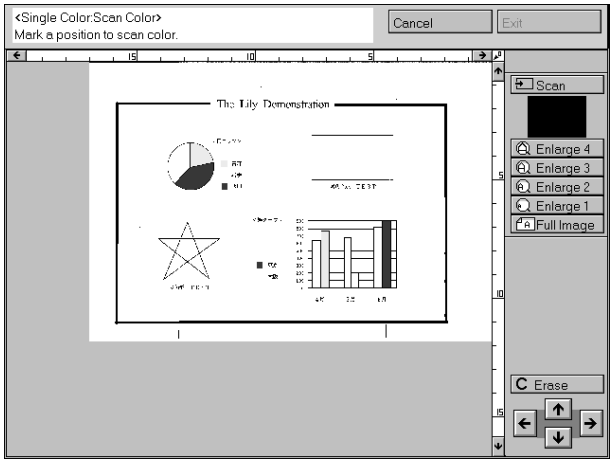



4 Touch the color on the image you wish to scan in with the editor pen.

❒ Point to an area of color with a radius of at least 5 mm.

❒ To cancel the pointing, touch the **[Erase]** key.

❒ For details of this display, ☛ see page 92.




5 Touch the **[Exit]** key.

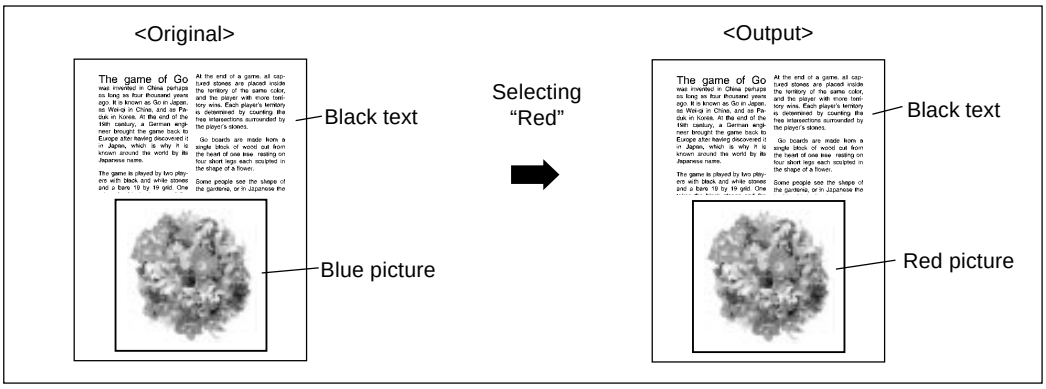
❒ The color you have chosen is scanned in.

6 Touch the **[Exit]** key.

### Twin color

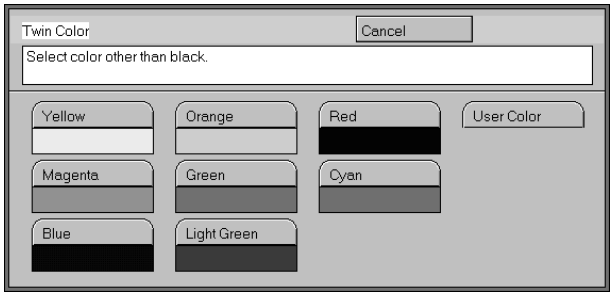
This function makes copies with black parts in black and other parts in the selected color.

Example:



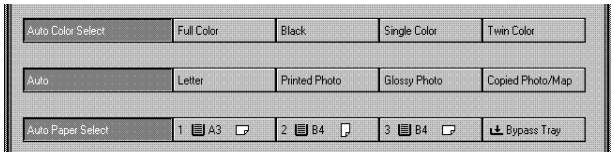

1 Touch the **[Twin Color]** key.

2 Select the color.




## Selecting The Original Image Type (Photo/Letter)

To optimize the likeness between copies and originals, select an image type that matches your originals.




❒ You can improve the readability of black lettering in colored areas. ☛ See page 83.

### Auto (Letter/Photo) mode

This mode automatically detects letter and photo parts of an original. The letter parts are copied in Letter mode, and the photo parts are copied in Photo mode.

❒ "Photo" means not only photo pictures but also screened letter and solid areas.

❒ Moire patterns may appear on the screened bold letters or screened areas of the copy. To lessen this effect, select "Soft" as image sharpness in the Image Adjustment function. ☛ See page 83.

❒ With some types of originals, Auto (Letter/Photo) mode might not be able to recognize the letter parts and photo parts correctly. As a result, the copy might not be reproduced well. In this case, select Letter mode or Photo mode.

❒ Border parts between letters and photos or high contrast photo may be copied with an emphasized outline.

### Letter mode

This mode is suitable for copying originals consisting of characters, line diagrams, and letters, but without photographs.

❒ If a photograph type original is copied in this mode, the photograph parts will not be reproduced as well as they should.

❒ When you select this mode, the background density of the copy may become lighter than the original image, especially under the following conditions:

- The original has low density letters or lines.
- The original has letters or lines with colored or screened background.
- The original has screened letters.
- When enlarged copies are made.

In this case, you can darken the background density. ☛ See page 83.

### Printed Photo mode

Use this function when copying photographs or pictures that are printed on glossy paper. (for example: magazines).

### Glossy Photo mode

Use this function when copying developed photographs.

### Copied Photo/Map mode

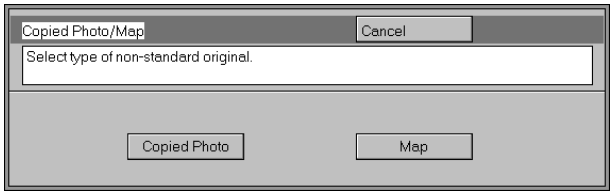
#### Copied Photo mode

Use this function when copying originals that have been color copied.

#### Map mode

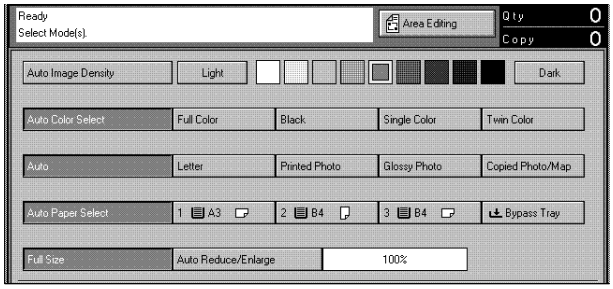
Use this function for maps.

❒ When you want to use Copied Photo mode or Map mode, touch the **[Copied Photo/Map]** key then select the mode.




## Selecting The Copy Paper Size

Select a suitable size of copy paper based on the original size and the reproduction ratio.




### Auto paper select

The copier automatically selects a suitable size of copy paper based on the original size and the reproduction ratio.

❒ Regarding functions that cannot be used together with this function, ☛ see page 73.

❒ Originals which are of a non-standard size, or smaller than A5, $5\frac{1}{2}" \times 8\frac{1}{2}"$ cannot be detected. In this case, select the paper size manually.

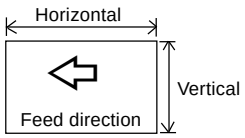
### Manual Paper Select

You can select the copy paper manually by touching one of the paper tray keys.

## Copying From The Bypass Tray

Use the bypass tray to copy onto thick paper, adhesive labels, OHP transparencies, or non-standard size paper. Also use the bypass tray to copy onto the reverse side of paper that has already been copier onto.

❒ The following limitations apply:

<table>
<tr><td rowspan="4">Acceptable paper types</td><td colspan="2">normal paper (64 ~ 104.7 g/m², 17 ~ 28 lb),<br>thick paper (104.7 ~ 157 g/m², 28 ~ 42 lb),<br>post cards,<br>OHP transparencies,<br>adhesive labels</td></tr>
<tr><td>Standard size</td><td>Metric version:<br>▭: A3, B4, A4, B5, A5, B6, A6<br>▯: A4, B5, A5</td></tr>
<tr><td></td><td>Inch version:<br>▭: 11" × 17", 10" × 14", 8 1/2" × 11", 5 1/2" × 8 1/2"<br>▯: 8 1/2" × 11", 5 1/2" × 8 1/2"</td></tr>
<tr><td>Non-standard size<br> 
</td><td>Metric version:<br>Vertical: 100 ~ 297 mm<br>Horizontal: 148 ~ 432 mm<br><br>Inch version:<br>Vertical: 3.9" ~ 11.7"<br>Horizontal: 5.8" ~ 17"</td></tr>
<tr><td>Number of sheets that can be set at one time</td><td colspan="2">standard paper: 50 sheets<br>thick paper, post cards, OHP transparencies: 20 sheets<br>adhesive labels: 1 sheets</td></tr>
</table>

❒ Touch a key that matches the paper:

**[Normal Paper]** : normal paper

**[Thick Paper]** : thick paper, post cards, adhesive labels

**[OHP]** : OHP transparencies

**[Duplex Back]** : Copying onto the reverse side of copies already made. ☛ See page 40.

**[Non-Std. Size]** : Select this after the paper type for non-standard sized paper. ☛ See page 39.

❒ When you set several sheets at a time, fan them to get air between them before loading.

❒ If the copy paper is curled, gently roll it to remove the curl.

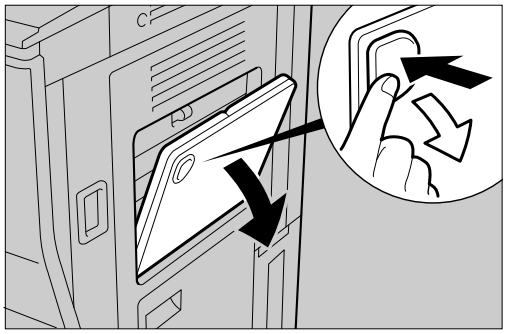
❒ When you copy onto OHP transparencies, remove copied sheets one by one.

❒ When you copy onto OHP transparencies, insert them with the copy side up.

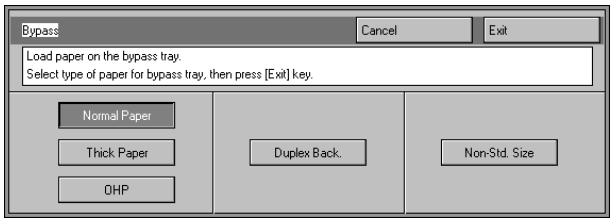
❒ Do not stack copy paper above the limit mark.

## Copying onto standard size paper with the bypass tray

1 Push the button on the bypass tray to open it.



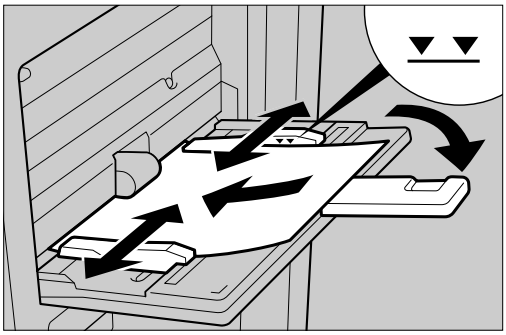
2 Touch the **[Normal Paper]** key, **[Thick Paper]** key, or **[OHP]** key.




3 Touch the **[Exit]** key.

4 Adjust the guides to the paper size.

- ❒ Make sure that the guides matches to the paper size.
- ❒ With large copy paper (more than A4□, 11" × 8 1/2"□), swing out the extender.



5 With the side you wish to copy onto face up, insert the paper into the feeder until the machine beeps.

6 Set your originals, then press the **Start** key.

## Copying onto non-standard size paper with the bypass tray

❒ The size that can be entered:
Vertical: 100 ~ 297 mm, 3.9" ~ 11.7"
Horizontal: 148 ~ 432 mm, 5.8" ~ 17"

❒ For an explanation of entering numbers, ☛ see page 21.

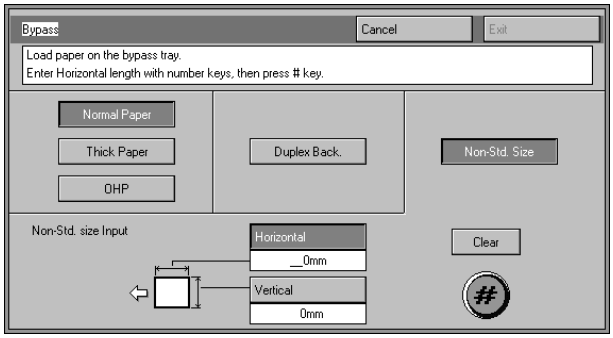
1 Push the button of the bypass feed table to open it.

2 Touch the **[Normal Paper]** key, **[Thick Paper]** key, or **[OHP]** key.

3 Touch the **[Non-Std. Size]** key.

4 Enter the horizontal size, then touch the **[#]** key.

5 Touch the **[Vertical]** key and enter the vertical size. Touch the **[#]** key to accept.




6 Touch the **[Exit]** key.

7 Adjust the guides to the paper size.

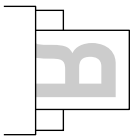
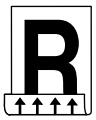
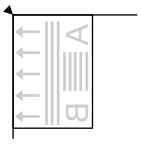
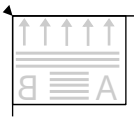
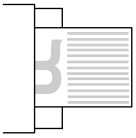
❒ With large copy paper (more than A4□, 11" × 8 1/2"□) , swing out the extender.

8 With the side you wish to copy onto face up, insert the paper into the feeder until the machine beeps.

9 Set your originals, then press the **Start** key.

## Copying onto the reverse side of paper that has been already copied onto

❒ Notice the direction of originals and copy paper.

| Original setting on the exposure glass | Copy paper setting on the bypass tray | Copies |
|---|---|---|
| |  |  |
|  | | |
| | | |
|  |  | |

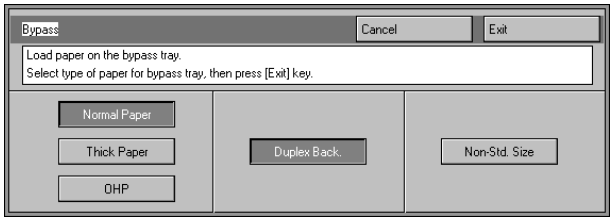
❒ You cannot use this function for OHP transparencies.

1. Push the button on the bypass tray to open it.

2. Touch the **[Normal Paper]** key or **[Thick Paper]** key.

❒ When you copy onto non-standard size paper, touch the **[Non-Std. Size]** key and enter the size. For details, ☛ see page .

3. Touch the **[Duplex Back]** key.




4. Touch the **[Exit]** key.

5. Adjust the guides to the paper size.

❒ With large copy paper (more than A4□, 11" × 8 1/2"□) , swing out the extender.

6. Insert the copy paper until the machine beeps.

❒ Make sure the front side (the side that has been copied onto) faces down.

7. Set your originals, then press the **Start** key.

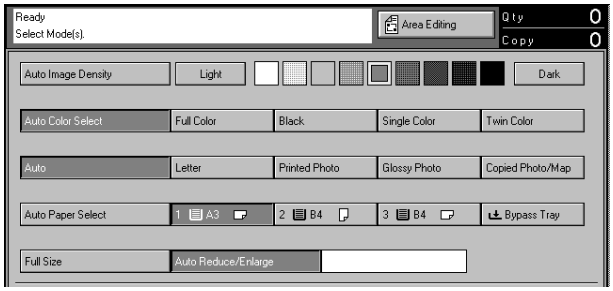
## Having The Copier Choose The Reproduction Ratios (Auto Reduce/Enlarge)

The copier can select the proper reproduction ratio based on the selected paper size and the original size.

❒ Regarding functions that cannot be used together with this function, ☛ see page 73.

Example:
Metric version: original: A3□, copy paper: A4□
Inch version: original: 11" × 17"□, copy paper: 8 1/2" × 11"□

1 Touch the **[Auto Reduce/Enlarge]** key.




2 Set your original on the exposure glass or in the dual job feeder. ☛ See page 23, 24 or 25.

3 Choose your copy paper size (ex. A4□, 8 1/2" × 11"□ ).

4 Press the **Start** key. The original image is enlarged or reduced to fit the selected copy paper.

## Turning The Touch Panel Display OFF/ON (Stand by)

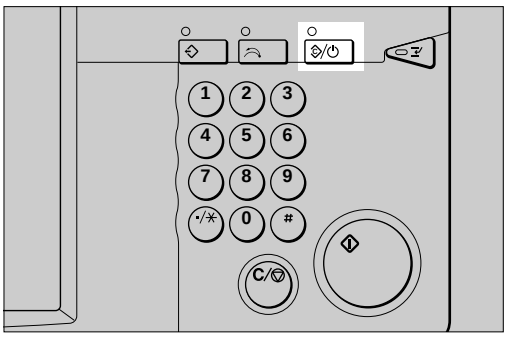
You can manually turn off the touch panel display to save energy.

❒ When the copier does not detect anyone operating it for a certain selected time, the touch panel display automatically turns off. You can change this time with User Tools, ☛ see page 126.

1 Hold down the **Clear Modes/Stand by** key more than 3 seconds to enter the Stand by mode.

❒ The touch panel display goes blank and the indicator for this key is on.

❒ To cancel this mode, press the **Clear Modes/Stand by** key again.

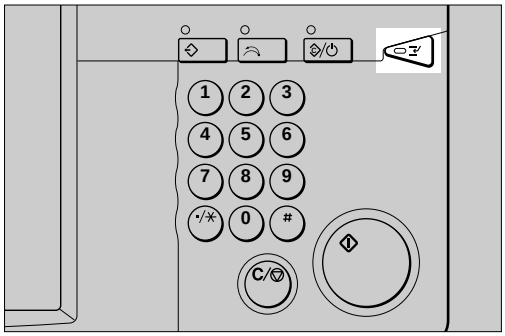


## Temporarily Stopping One Job To Copy Something Else (Interrupt Copying)

Use the **Interrupt** key to interrupt a multicopy run and make urgently needed copies.

❒ Regarding functions that cannot be used together with this function, ☛ see page 73.

1 Press the **Interrupt** key. The copier will stop the copy run and store the present settings in the memory. The copier will return to the ready condition.




2 Remove the previous original. Set your original for interrupt copying on the exposure glass or in the dual job feeder.

3 Make your copies.

4 After interrupt copying is completed, press the **Interrupt** key again. The copier will recall the previous copy settings.

5 Reset the previous original and press the **Start** key to resume the previous run.

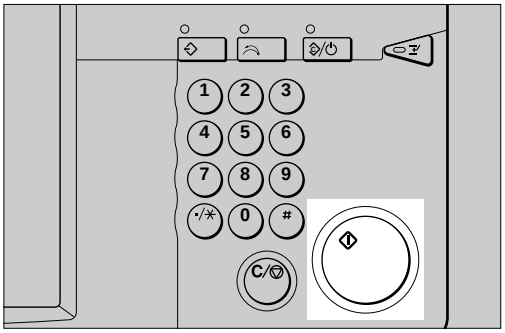
## Entering Copy Job Settings During The Warm-up Period (Auto Start)

If you press the **Start** key during the warm-up period, the **Start** key will blink and the copier will start copying after the warm-up period.

1 Set your copy settings during the warm-up period.

2 Press the **Start** key.

❒ To cancel Auto Start, press the **Clear/Stop** key.

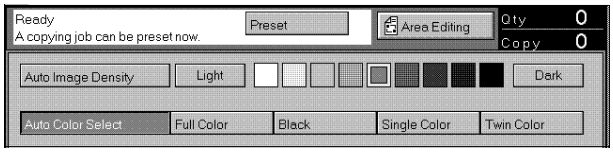


## Presetting Copy Job During A Copy Run (Preset)

You can set the copy settings for your next job. The copier will start the next copy job after the current job is completed.

***NOTE:*** *This function can be used only when your machine is equipped with the optional dual job feeder.*

1 Touch the **[Preset]** key.




2 Set the copy job settings.

3 Touch the **[Exit]** key.

4 Set the originals for your next job on top of the originals being copied.

❒ Push in the originals completely, but do not insert too strongly.

5 Touch the **[Exit]** key.

❒ After the first job is finished, the next job will start automatically.

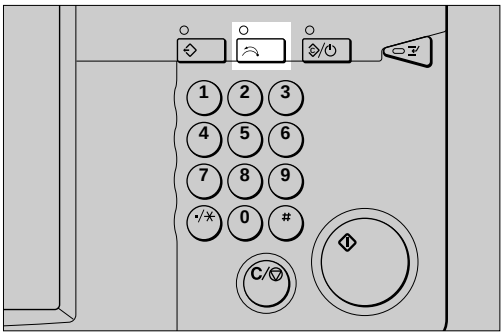
❒ To change or cancel the preset copy jobs, touch the **[Preset]** key and follow the instructions on the display.

## Recalling The Previous Job Settings (Recall)

This copier automatically stores the previous job settings. If you want to copy with the same settings as the previous job, press the **Recall** key. You can also change the recalled job settings.

❒ When the recalled job setting is for area editing, you cannot change it.

❒ Colors grabbed with the Scan Color function cannot be recalled and it will be copied in Black.

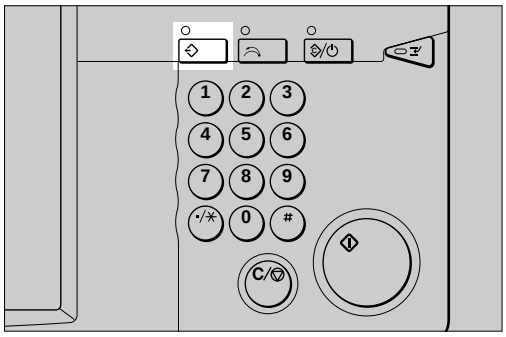


# Storing And Recalling Your Copy Settings In Memory (Program)

You can store up to five frequently used copy job settings in machine memory, and recall them for future use.

❒ The following functions can be stored:

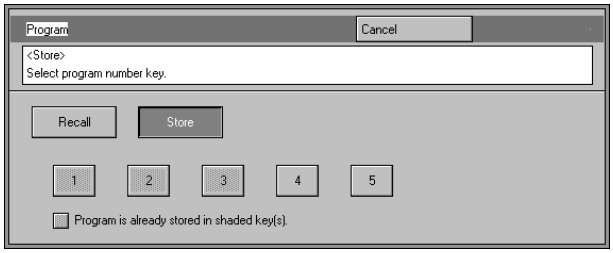
- Image density
- Color selection
- Paper size
- Reducing and enlarging
- Size of non-standard size original
- Finishing mode
- Shift/Book mode
- Color creation
- Image creation
- Default settings
- Color balance adjustment
- Single color adjustment
- Image adjustment
- User color memory
- Projector mode
- Area editing



❒ Colors grabbed with the Scan Color function cannot be stored in memory and it will be copied in Black.

## Storing Your Settings

1. Set the copy settings you want to put into memory.
2. Press the **Program** key.
3. Touch the **[Store]** key.

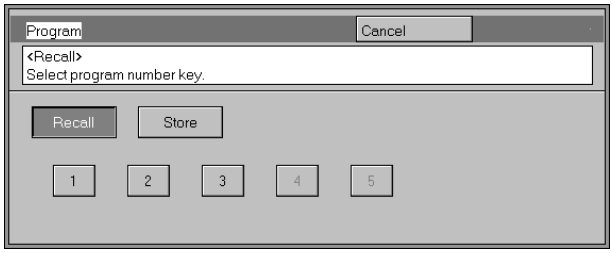



4. Select the program number you want to store the settings in.

## Recalling Your Settings

❒ When the recalled job setting is for area editing, you cannot change it.

1. Press the **Program** key.
2. Make sure the **[Recall]** key is selected.



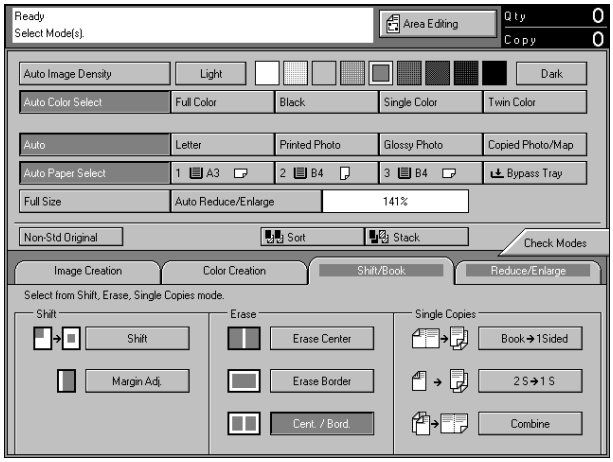

3. Select the program number you want to recall.

## Checking And Changing The Selected Copy Jobs

When you have selected modes, the **[Check Modes]** key appears on the touch panel display.

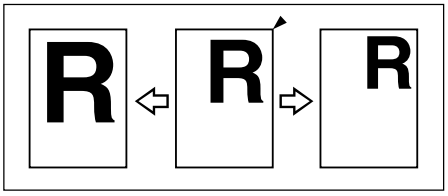
By touching the **[Check Modes]** key, you can see at a glance all the modes you have selected.

To return to the display when the **[Check Modes]** key was touched, touch the **[Prev. Screen]** key.




# REDUCING AND ENLARGING (Reduce/Enlarge)

## Reducing And Enlarging Using Preset Ratios (Preset R/E)

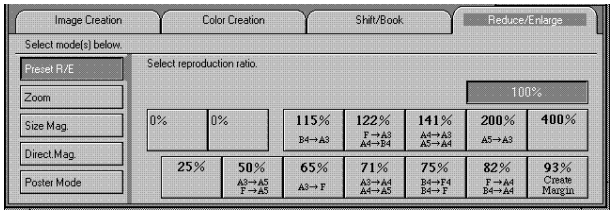



❒ You can add up to two preset ratios by User Tools. ☛ See page 128.

❒ Regarding functions that cannot be used together with this function, ☛ see page 73.

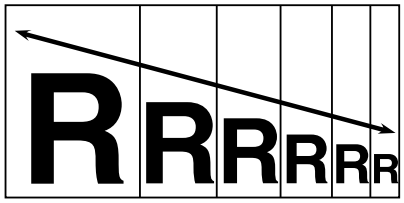
1 Touch the **[Reduce/Enlarge]** key.

2 Make sure that the **[Preset R/E]** key is selected. Then, select the ratio.




3 Set your originals, then press the **Start** key.

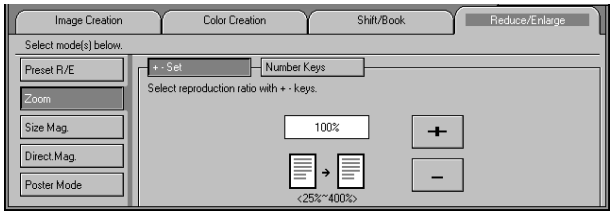
# Reducing And Enlarging In 1% Steps (Zoom)




You can change the reproduction ratio from 25 % to 400 % in 1% steps.

## Using the [+– set] key

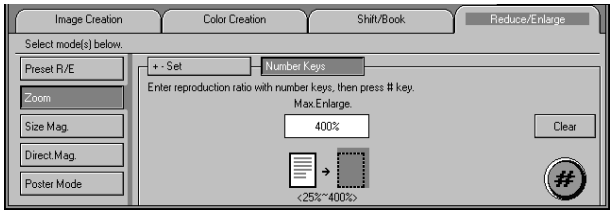
1. Touch the **[Reduce/Enlarge]** key.
2. Touch the **[Zoom]** key.
3. Make sure that the **[+– Set]** key is selected.
4. Adjust the reproduction ratio following the instructions on the display.
5. Set your originals, then press the **Start** key.



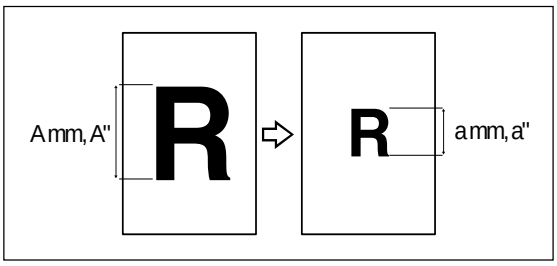

## Using the [Number keys] key

❒ For an explanation of entering numbers, ☛ see page 21.

1. Touch the **[Reduce/Enlarge]** key.
2. Touch the **[Zoom]** key.
3. Touch the **[Number Keys]** key.
4. Adjust the reproduction ratio following the instructions on the display.
5. Set your originals, then press the **Start** key.



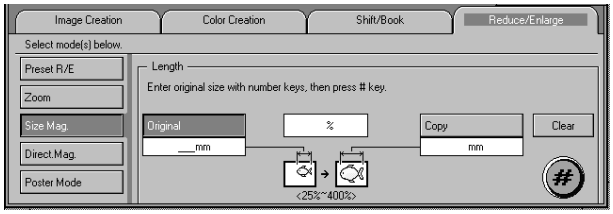
## Fitting The Original To A Copy Of A Different Size (Size Magnification)



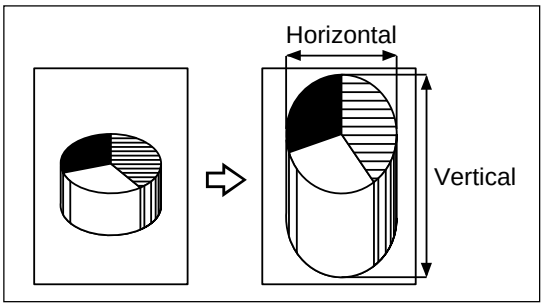

The suitable reproduction ratio will be automatically selected when you enter the length of the original and the length of the copy image you want.

❒ For an explanation of entering numbers, ☞ see page 21.

1. Touch the **[Reduce/Enlarge]** key.
2. Touch the **[Size Mag.]** key.
3. Enter the original size and copy paper size using the **Numbe**r keys following the instructions on the display.
   ❒ Up to 999 mm (metric version), 99.99" (inch version) can be entered.
4. Set your originals, then press the **Start** key.




## Reducing And Enlarging With Independent Ratios For Vertical And Horizontal Directions (Directional Size Magnification)




❒ There are two ways to set the ratios.

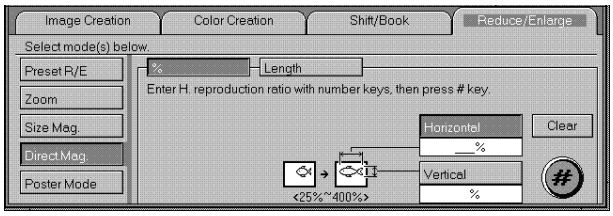
❒ For an explanation of entering numbers, ☞ see page 21.

### Using the [%] key

1. Touch the **[Reduce/Enlarge]** key.
2. Touch the **[Direct. Mag.]** key.
3. Make sure that the **[%]** key is selected.

4 Adjust the reproduction ratio following the instructions on the display.

❒ You can enter the ratio in the range of 25 ~ 400 %.




5 Set your originals, then press the **Start** key.

### Using the [Length] key

By inputting the size of the original and the copy, the machine automatically calculates the reproduction ratio.

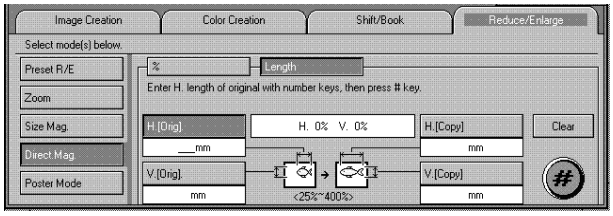
1 Touch the **[Reduce/Enlarge]** key.

2 Touch the **[Direct. Mag.]** key.

3 Touch the **[Length]** key.

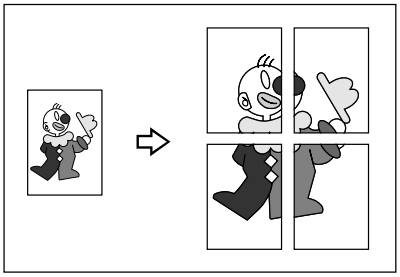
4 Adjust the reproduction ratio following the instructions on the display.

❒ Up to 999 mm (metric version), 99.99" (inch version) can be entered.



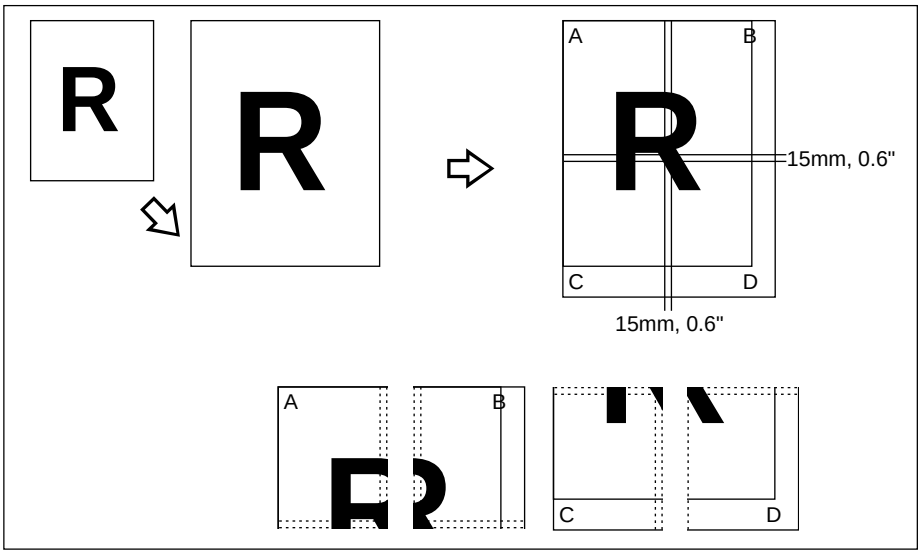

5 Set your originals, then press the **Start** key.

## Enlarging The Complete Image Onto Several Sheets (Poster Mode)



You can enlarge the complete image of originals onto several sheets. This function is convenient for making posters.

❒ In this function, the copies are delivered with margins around the copy image (about 15 mm, 0.6"). If you want to paste the sheets to make a poster (one large sheet), cut the margins out.




❒ For an explanation of entering numbers, ☛ see page 21.

## Using the [Page Nos] key

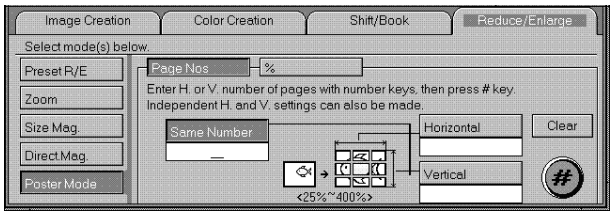
By entering the desired number of pages, the machine automatically calculates the suitable enlargement ratio for copying.

1. Touch the **[Reduce/Enlarge]** key.
2. Touch the **[Poster Mode]** key.
3. Make sure that the **[Page Nos]** key is selected.
4. Enter the number of pages following the instructions on the display.

❒ Up to 20 pages can be entered.

❒ If the number of pages coincides with an enlargement of more than 400%, blank pages will be fed out.

5. Set your originals, press the **Start** key.



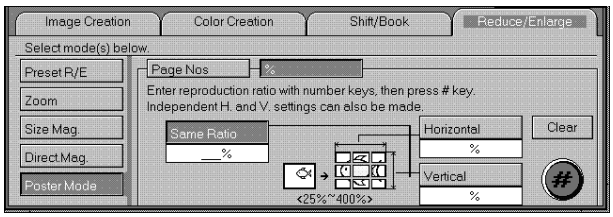

## Using the [%] key

By entering the desired enlargement ratio, the machine automatically calculates the necessary number of copy pages.

1. Touch the **[Reduce/Enlarge]** key.
2. Touch the **[Poster Mode]** key.
3. Make sure that the **[%]** key is selected.
4. Enter the ratios following the instructions on the display.

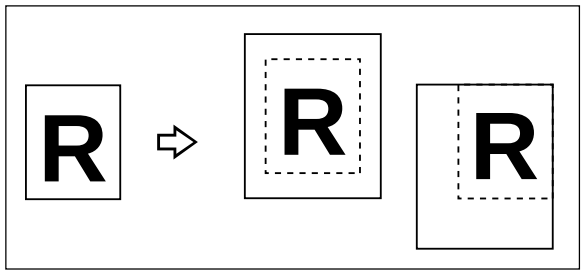
❒ You can enter the ratios in the range of 25 ~ 400 %.

5. Set your originals, then press the **Start** key.



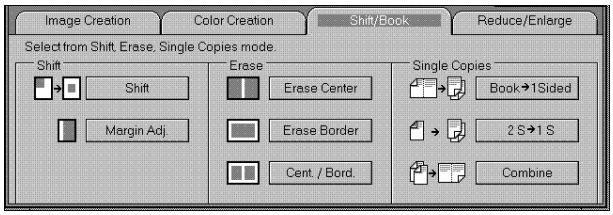
# SHIFTING THE IMAGE (Shift/Book)

## Centering/Cornering



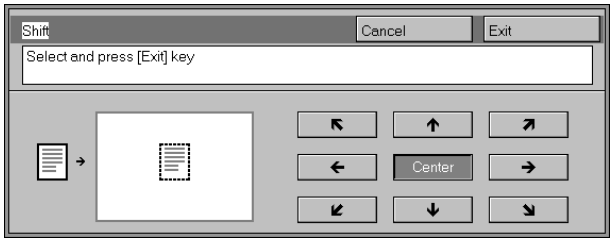

You can move the image to a corner or edge as well as center it. This function is convenient when the copy paper is larger than the original.

1. Touch the **[Shift/Book]** key.
2. Touch the **[Shift]** key.



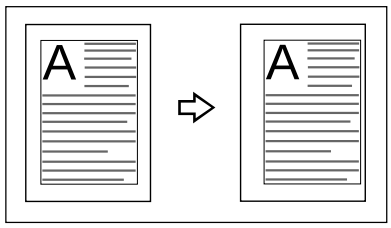

3. Select the direction in which you want to shift the image.

❒ When you want to center the image, touch the **[Center]** key.




4. Touch the **[Exit]** key.
5. Select the copy paper size.
6. Set your originals, then press the **Start** key.

## Adding Margins For Binding (Margin Adjustment)




You can make a margin by shifting the image to the left or right. This function is convenient when you want to bind copies.

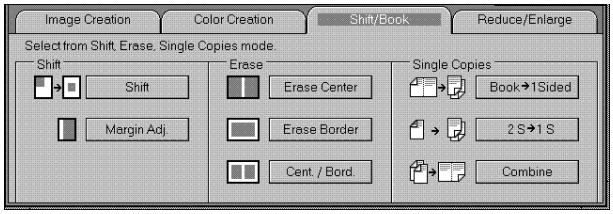
❒ Maximum margin width: Metric version: 20 mm (in 1 mm steps)

Inch version: 0.8" (in 0.1" steps)

❒ Regarding functions that cannot be used together with this function, ☛ see page 73.

1 Touch the **[Shift/Book]** key.

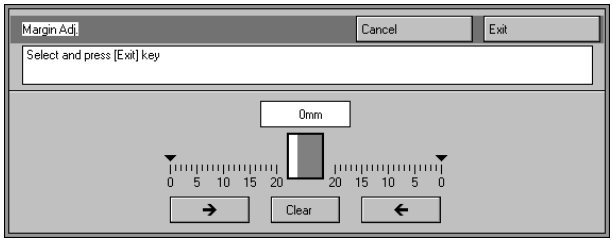
2 Touch the **[Margin Adj.]** key.




3 To make a left margin, touch the **[→]** key until the number displayed reaches the required setting.

To make a right margin, touch the **[←]** key until the number displayed reaches the required setting.

❒ To clear the margin, touch the **[Clear]** key.

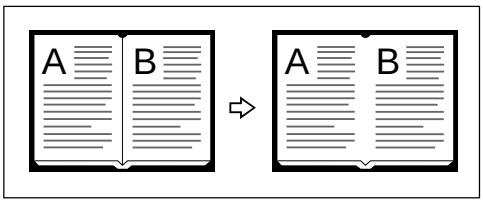



4 Touch the **[Exit]** key.

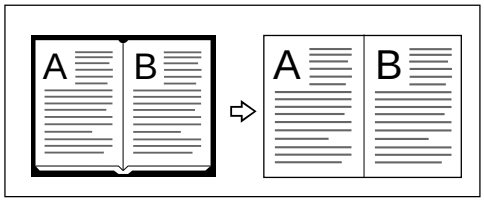
5 Set your originals, then press the **Start** key.

# ERASING PARTS OF THE COPY IMAGE (Shift/Book)

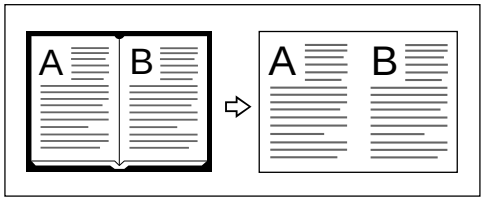
## Erasing The Center Margin Of The Original Image (Erase Center)




## Erasing The Surrounding Area Of The Original Image (Erase Border)



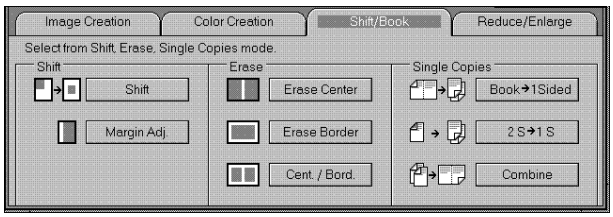

## Erasing The Center Margin And Surrounding Area Of The Original Image (Erase Center And Border)




❒ Regarding functions that cannot be used together with these functions, ☛ see page 73.

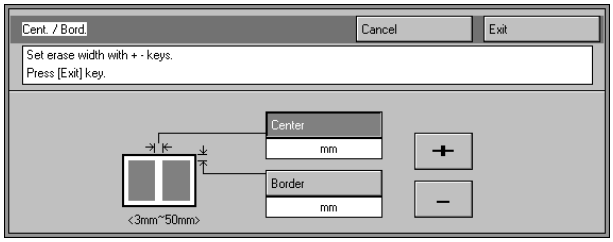
1 Touch the **[Shift/Book]** key.

2 Touch the **[Erase Center]** key, the **[Erase Border]** key, or the **[Cent./Bord.]** key.




3 Adjust the width of the margin to be erased by touching the **[+]** key or the **[–]** key.

❒ You can adjust the width in the range of 3 ~ 50 mm, 0.1" ~ 2.0".

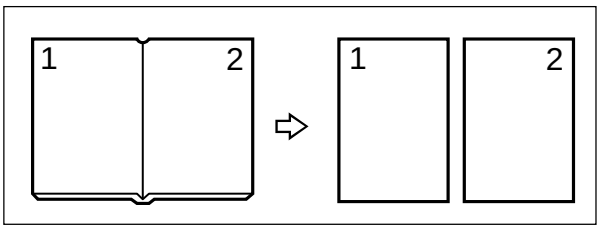



4 Touch the **[Exit]** key.

5 Set your originals, then press the **Start** key.

# MAKING SINGLE COPIES (Shift/Book)

## From Book Originals To 2 One-sided Copies (Book → 1 Sided)



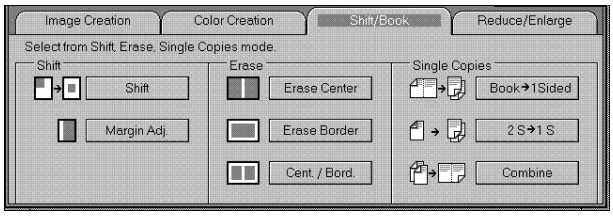

This function makes one-sided copies from two facing pages of bound (book) originals.

❒ Regarding functions that cannot be used together with this function, ☛ see page 73.

1 Select the copy paper size.

2 Touch the **[Shift/Book]** key.

3 Touch the **[Book → 1 Sided]** key.



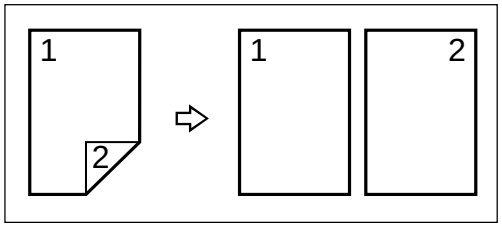

4 Start with the last page of your book original and work your way to the beginning.

Place the original *face down* on the exposure glass.

Or, set the facing original in the optional dual job feeder.

5 Press the **Start** key.

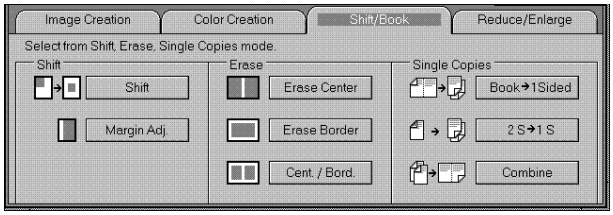
## From Two-sided Originals To 2 One-sided Copies (2 Sided → 1 Sided)




***NOTE:*** *This function can be used only when your copier is equipped with the optional dual job feeder.*

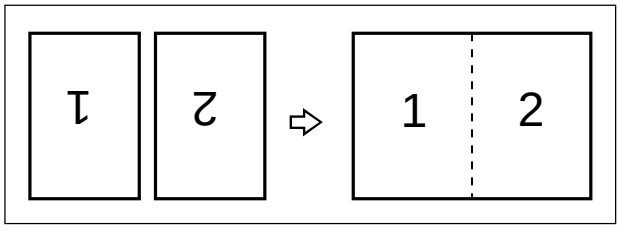
❒ Regarding functions that cannot be used together with this function, ☛ see page 73.

1. Touch the **[Shift/Book]** key.
2. Touch the **[2 S → 1 S]** key.




3. Set your originals in the dual job feeder.
4. Select the copy paper size.
5. Press the **Start** key.

## Combining Two Originals (Combine)

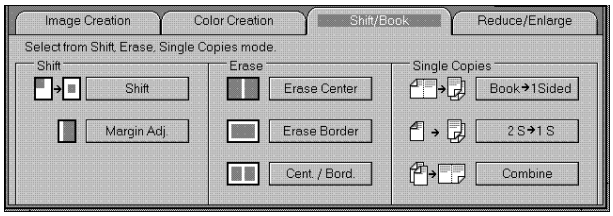



This function automatically combines 2 one-sided originals onto one copy.

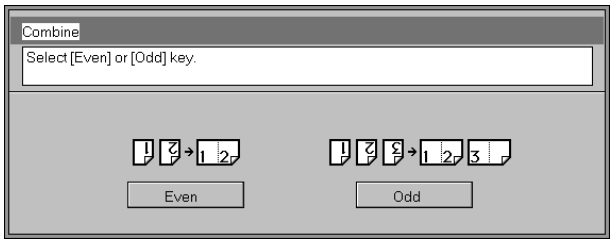
***NOTE:*** *This function can be used only when your copier is equipped with the optional dual job feeder.*

❒ Regarding functions that cannot be used together with this function, ☛ see page 73.

1. Touch the **[Shift/Book]** key.
2. Touch the **[Combine]** key.



3 Touch the **[Even]** key or the **[Odd]** key according to the number of your originals.




4 Set your originals in the dual job feeder.

5 Select the copy paper size.

6 Press the **Start** key.

# COLOR CREATION

## Converting A Selected Color Into A Different Color (Color Conversion)

This function converts a selected color of an original into a different color on the copy.

❒ Color samples, ☛ see page 12.

❒ Up to 4 colors can be converted at one time.

❒ Colors that can be converted:

Yellow, Red, Magenta, Green, Cyan, Blue, Black, White, and Scan Color (only one Scan Color can be selected at a time)

❒ Colors that can be used after conversion:

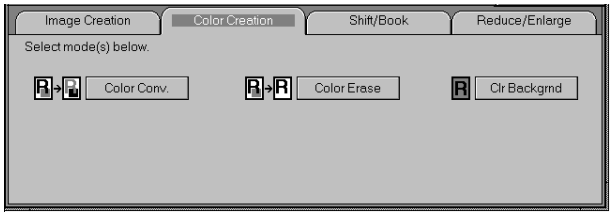
Yellow, Orange, Red, Magenta, Green, Cyan, Blue, Light-green, Black, White, User colors, and Scan Color (only one Scan Color can be selected at a time)

❒ This function can be made more or less sensitive to the color to be converted. It can be adjusted within five levels from "Narrow" to "Wide". ☛ See page 127.
For example, if red is selected as the color to be converted, "Narrow" will result in only red being converted, and "Wide" will result in other colors close to red being converted.

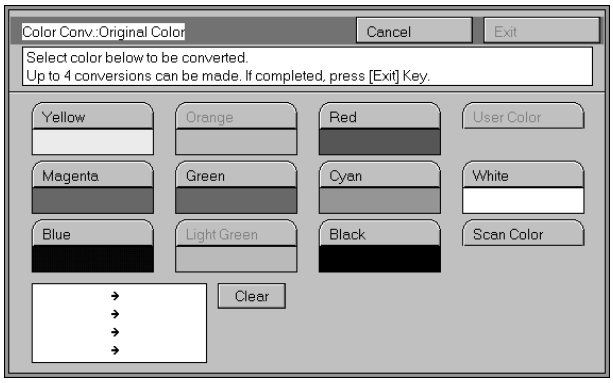
❒ If you pick the wrong color, touch the **[Clear]** key and choose another.

❒ For details on Scan Color, ☛ See page 34.

1. Touch the **[Color Creation]** key.
2. Touch the **[Color Conv.]** key.




3. Select the color to be converted.
4. Select the color to be used after conversion.
5. If you want to convert more than one color, repeat steps 3 and 4.
6. Touch the **[Exit]** key.
7. Set your originals, then press the **Start** key.



# Erasing The Selected Color (Color Erase)

This function erases a selected color from the original image.

❒ To see the color samples, ☛ see page 12.

❒ Up to 4 colors can be erased at one time.

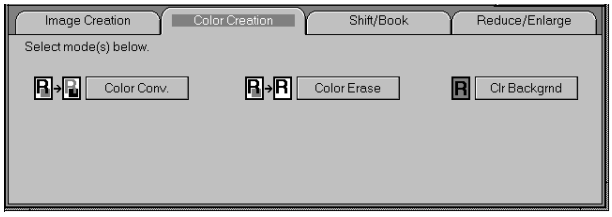
❒ Colors that can be erased:

Yellow, Red, Magenta, Green, Cyan, Blue, Black, and Scan Color (only one Scan Color can be selected at a time)

❒ This function can be made more or less sensitive to the color to be erased. It can be adjusted within five levels from "Narrow" to "Wide". ☛ See page 127.
For example, if red is selected as the color to be converted, "Narrow" will result in only red being erased, and "Wide" will result in other colors close to red being erased.

1 Touch the **[Color Creation]** key.

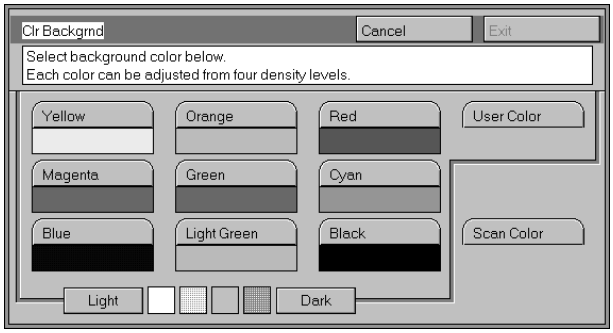
2 Touch the **[Color Erase]** key.




3 Select the color to be erased.

❒ To cancel the selected color, touch the color key again.

❒ For details on Scan Color, ☛ See page 34.




4 Touch the **[Exit]** key.

5 Set your originals on the exposure glass or in the dual job feeder.

6 Press the **Start** key.

# Making Copy With Color Background (Color Background)

This function makes copies with a selected color background.

❒ Color samples, ☛ see page 12.

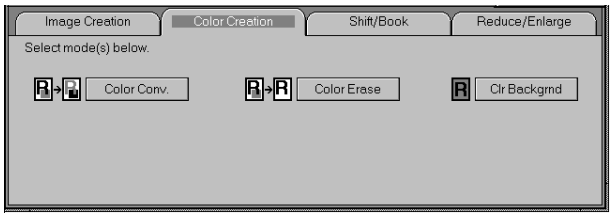
❒ Colors that can be selected as a background color:

Yellow, Orange, Red, Magenta, Green, Cyan, Blue, Light-green, Black, Scan Color, and User Colors

❒ In this mode, color tones of photo or picture in originals might be changed due to the color on the background.

1 Touch the **[Color Creation]** key.

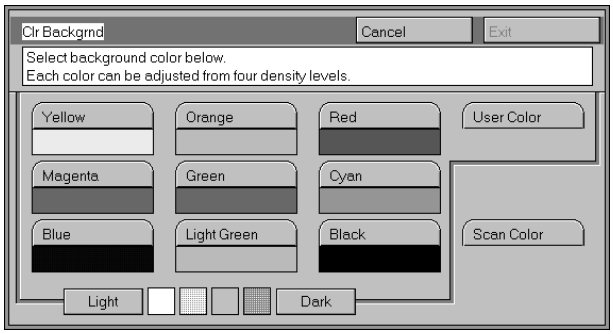
2 Touch the **[Clr Backgrnd]** key.




3 Select the color for background.

❒ For details on Scan Color, ☛ See page 34.

❒ Colors (except for Scan Color) can be made lighter or darker.

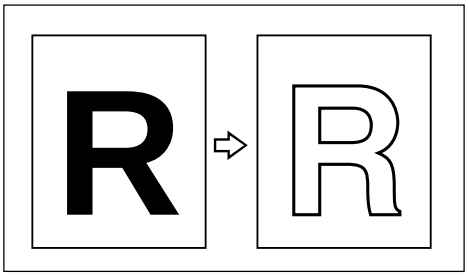



4 Touch the **[Exit]** key.

5 Set your originals, then press the **Start** key.

# IMAGE CREATION

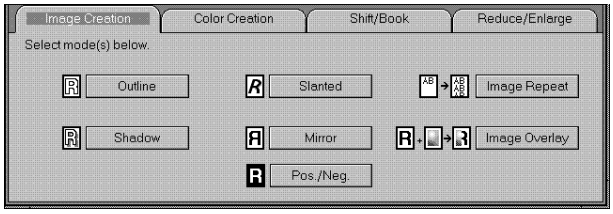
## Copying Only The Outline Of The Image (Outline)



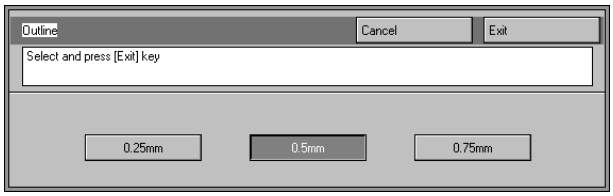
This function copies only the outline of the image.

❒ In the Photo mode, this function might not work well. In this case, select Letter mode or Auto (Letter/Photo) mode.

1. Touch the **[Image Creation]** key.
2. Touch the **[Outline]** key.

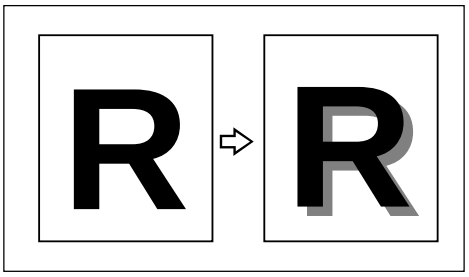



3. Select the width of the outline.



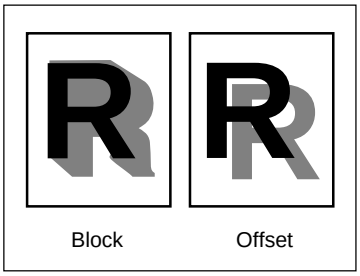

4. Touch the **[Exit]** key.
5. Set your originals, then press the **Start** key.

# Adding A Shadow Around The Copy Image Elements (Shadow)

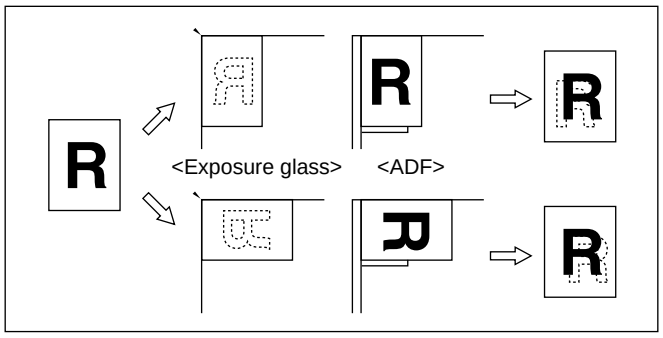


This function adds a shadow around the edges of copy image elements.

❒ You can select block shadow or offset shadow.




❒ The orientation of the original decides the position of the shadow as follows:




❒ You can select the color of shadow as follows:

Same Color: A shadow of the same color as the original is added. When you select this key, Full Color mode will be automatically selected. You cannot change the color mode.

Select Color: You can select the color of the shadow. When you select this key, Full Color mode will be automatically selected. You can change the color mode as follows:

| Color of the shadow | Acceptable Color Mode |
|---|---|
| Black | Black |
| Yellow, Orange, Red, Magenta, Blue, Cyan, Green, Light-green, User Color, Scan Color | Single color: Same color as the color selected for the shadow.<br>Twin color: Same color as the color selected for the shadow. |

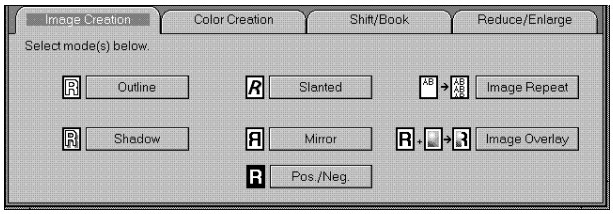
❒ Shadow widths:

Metric version: 1 mm, 2 mm, 3 mm, 4 mm

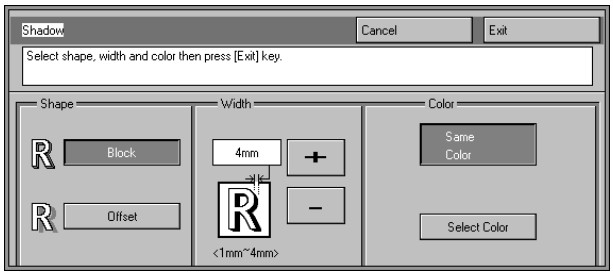
Inch version: 0.04", 0.08", 0.12", 0.16"

## Same color shadow

1. Touch the **[Image Creation]** key.
2. Touch the **[Shadow]** key.



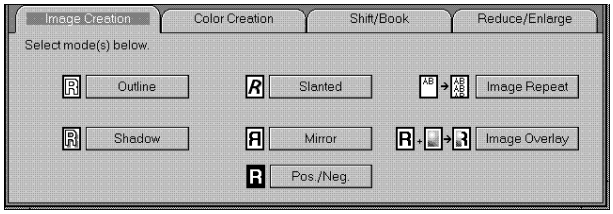

3. Touch the **[Block]** key or the **[Offset]** key.
4. Adjust the width by touching the **[+]** key or the **[–]** key.
5. Make sure the **[Same Color]** key is selected.



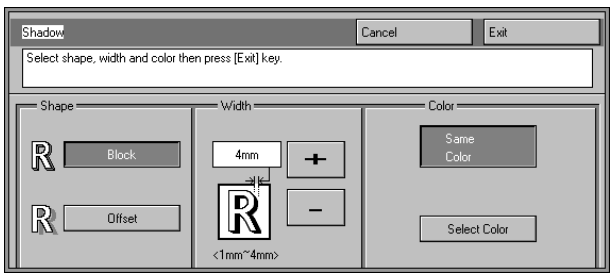

6. Touch the **[Exit]** key.
7. Set your originals, then press the **Start** key.

## Select color shadow

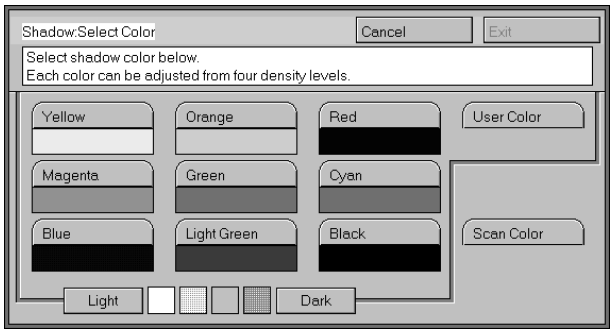
1. Touch the **[Image Creation]** key.
2. Touch the **[Shadow]** key.




3. Touch the **[Block]** key or the **[Offset]** key.
4. Adjust the width by touching the **[+]** key or the **[–]** key.
5. Touch the **[Select Color]** key.



6 Select the color, then touch the **[Exit]** key.

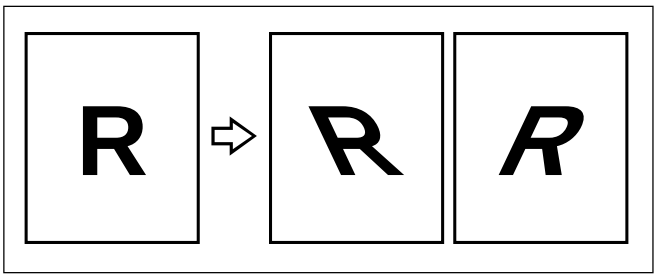



❒ For details on Scan Color, ☛ See page 34.
❒ Colors (except for Scan Color) can be made lighter or darker.

7 Touch the **[Exit]** key.

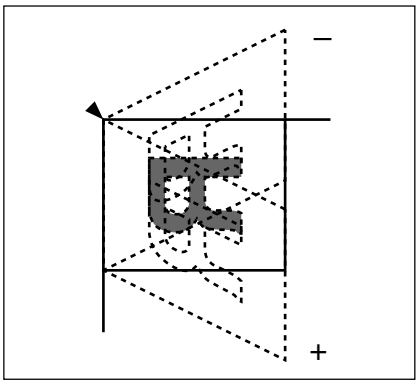
8 Set your originals, then press the **Start** key.

## Slanting The Copy Image (Slanted)




This function slants the copy image at a selected angle.

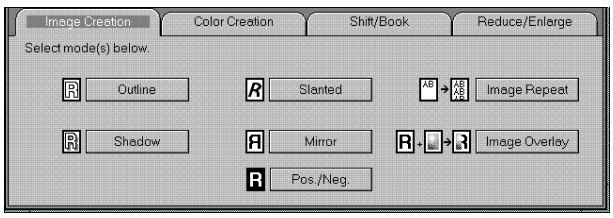
❒ The slant direction is decided as shown in the illustration.



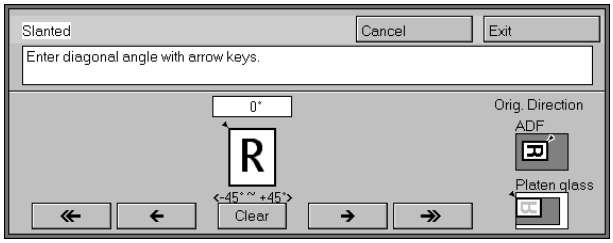

❒ You can select the angle from –45° to +45°.

1 Touch the **[Image Creation]** key.

2 Touch the **[Slanted]** key.



3 Adjust the angle by touching the arrow keys.



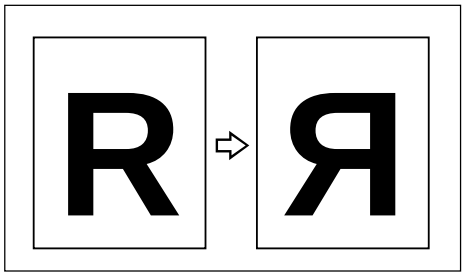

❒ By touching the **[⇒]** key or the **[⇐]** key, the number of the angle can be adjusted by in steps of 5°.

❒ To cancel the angle, touch the **[Clear]** key.

5 Touch the **[Exit]** key.

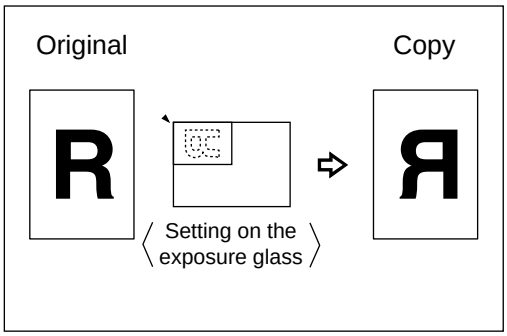
6 Set your originals, then press the **Start** key.

## Making A Mirror Image (Mirror)



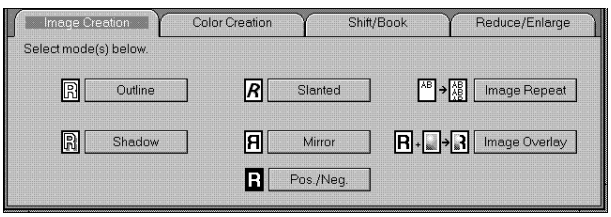

This function makes a mirror image copy of the original.

❒ Original and copy orientations are as below:



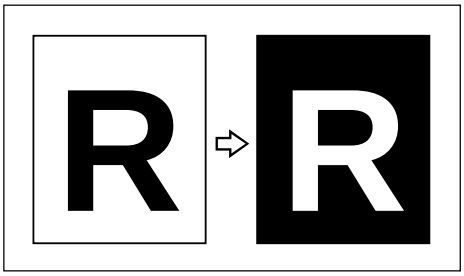

1 Touch the **[Image Creation]** key.

2 Touch the **[Mirror]** key.




3 Set your originals, then press the **Start** key.

## Copying In Complementary Colors (Positive/Negative)

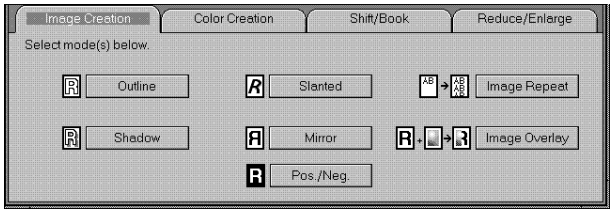



This function copies the original image in complementary colors. If you use a black and white original, black and white areas of the original are reversed.

❒ If you copy using twin color mode, white areas are changed to black, black areas are changed to white, and color areas are changed to the selected color.

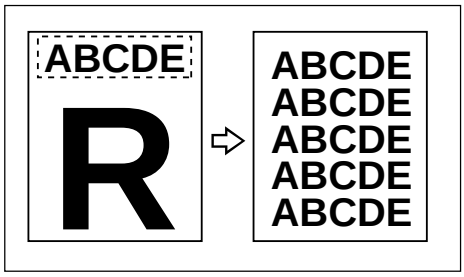
1 Touch the **[Image Creation]** key.

2 Touch the **[Pos./Neg.]** key.




3 Set your originals, then press the **Start** key.

## Copying A Part Of An Original Image Repeatedly (Image Repeat)




This function copies a part of the original image repeatedly.

❒ When this function is used, the leading edge margin of 10 mm, 0.4" is set on the copy paper.

❒ There are three ways to specify the image of the original to be repeated as follows:

Length: This function allows you to reproduce the top band of an original repeatedly down the entire copy. You specify the width of the band (the vertical length of image ) and it is repeated as many times as will fit on the copy.

No. of Images: This function also allows you to reproduce the top band of an original repeatedly down the entire copy, but here you specify the number of image repetitions you want and the copier will determine the width of the top band.

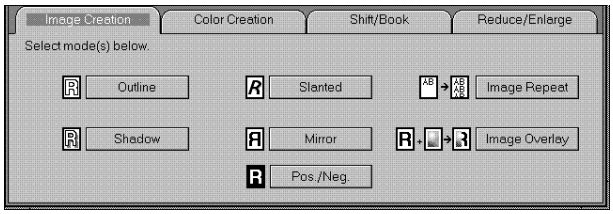
Editing: This function allows you to select an area of the original and reproduce it repeatedly down the copy. The repetitions are made one below the other, and are all aligned to the right. (Only for Edit type)

❒ For an explanation of entering numbers, ☛ See page 21.

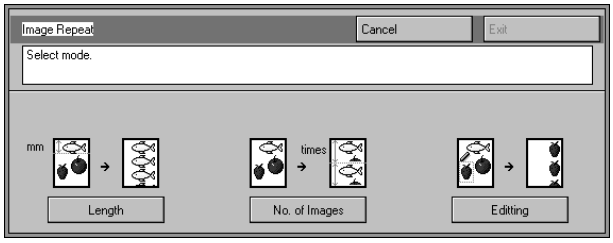
## When using the [Length] key

1 Touch the **[Image Creation]** key.

2 Touch the **[Image Repeat]** key.

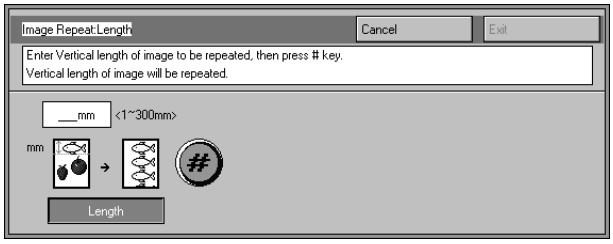



3 Touch the **[Length]** key.




4 Enter the length using the **Number** keys then touch the **[#]** key.

❒ The length that you can enter is 1 ~ 300 mm, 0.1" ~ 11.7". When you enter less than 5 mm, 0.2", however, the image might not repeated well.



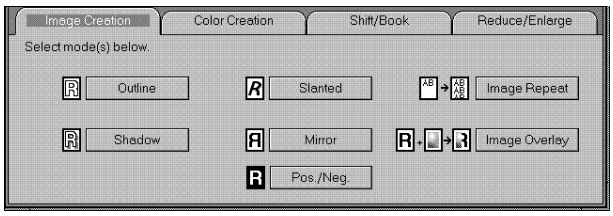

5 Touch the **[Exit]** key.

6 Set your originals, then press the **Start** key.

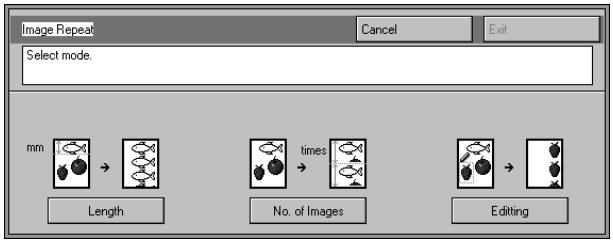
## When using the [No. of Images] key

1 Touch the **[Image Creation]** key.

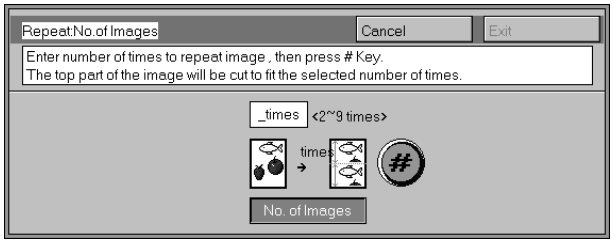
2 Touch the **[Image Repeat]** key.




3 Touch the **[No. of Images]** key.



4 Enter a number between 2 and 9 and touch the **[#]** key.


Repeat:No.of Images
Cancel
Exit
Enter number of times to repeat image , then press # Key.
The top part of the image will be cut to fit the selected number of times.
_times
<2~9 times>
times
#
No. of Images

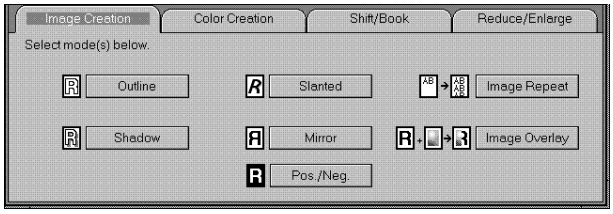
5 Touch the **[Exit]** key.

6 Set your originals, then press the **Start** key.

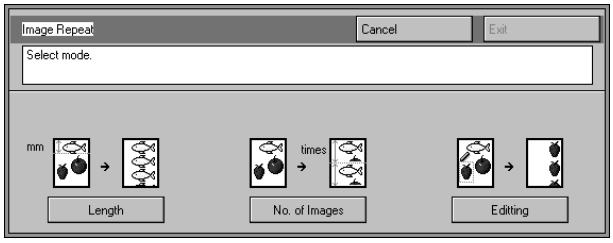
## When using the [Editing] key (Only for Edit type)

1 Touch the **[Image Creation]** key.

2 Touch the **[Image Repeat]** key.

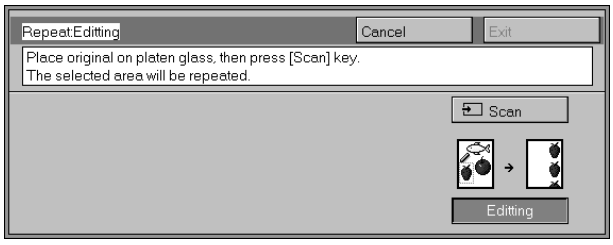



3 Touch the **[Editing]** key.




4 Set your original on the exposure glass, then touch the **[Scan]** key.

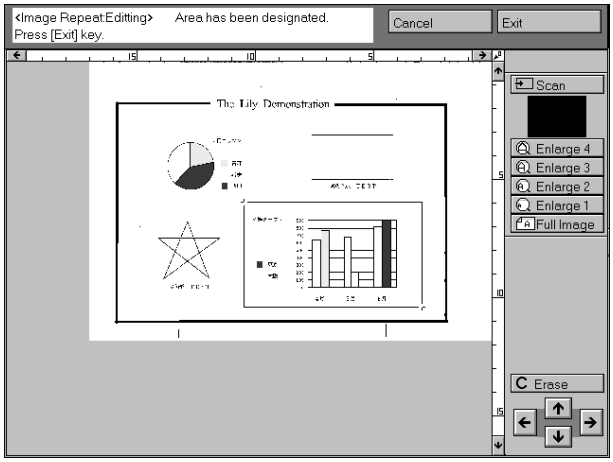
❒ The image of the original is displayed.




5 Mark diagonally opposite corners of area to be repeated.

❒ The area you have designated is scanned in.

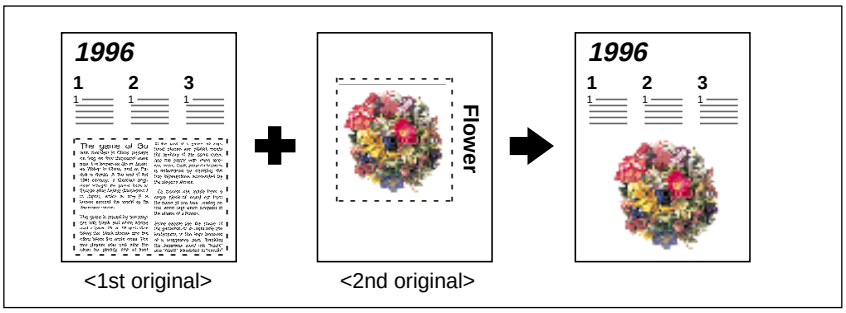
❒ For details about designating the area, ☛ see page 92.



6 Touch the **[Exit]** key.

7 Set your originals, then press the **Start** key.

## Merging Images (Image Overlay) (Only for Edit type)




<1st original> <2nd original>

This function makes a copy merging images of two originals.

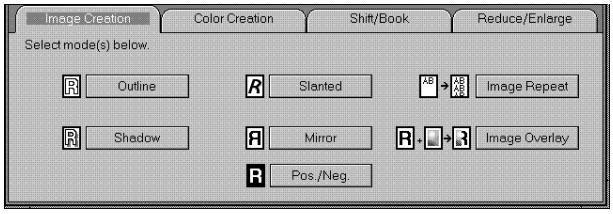
❒ For overlaying, the following limitations apply:

| Original | 1st original | 2nd original |
|---|---|---|
| Size | A4□, 11" × 8 1/2"□ or less | A3□, 11" × 17"□ or less |
| Resolutions/ Gradations | 400 dpi/ Two values (black and white) | 400 dpi/256 gradations |
| Scanning/Displaying | Scanning and displaying in black | Scanning and displaying in full color |
| Color selection | Black, Single Color, User Color | Full Color, Black, Single Color, User Color, Scan Color |
| Image type | Letter | Printed photo, Glossy photo, Letter, Non-standard original (Copied photo, Map) |
| Reducing/Enlarging | Full Size | Full Size, Preset R/E, Zoom, Auto R/E |
| Other functions that can be set | — | Copy Image Density Adjustment, Color Creation, Image Adjustment, Color Balance Adjustment, Single Color Adjustment |

❒ If the 1st original has half tone images (such as photos), it might not come out well.

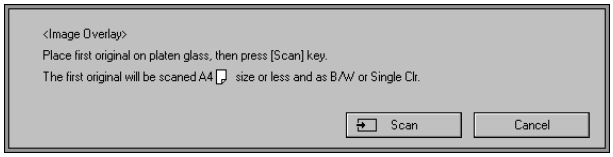
1 Touch the **[Image Creation]** key.

2 Touch the **[Image Overlay]** key.



**3** Set the first original (original that will be the base image) on the exposure glass. Then touch the **[Scan]** key.

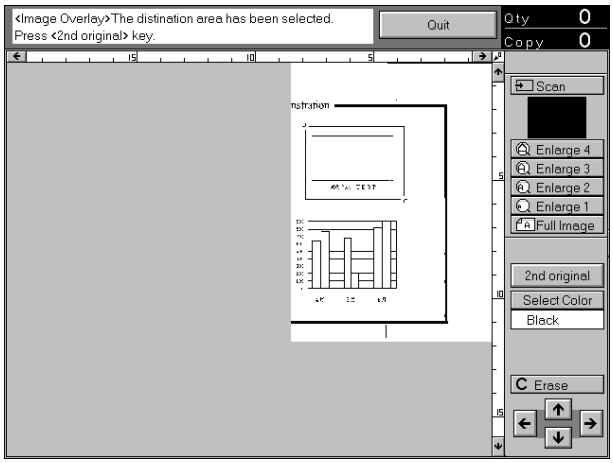
❒ The image of the first original is displayed.




**4** Mark diagonally opposite corners of area to be overlaid.

❒ If you want to change the color mode for the first original, touch the **[Select Color]** key and select the color.

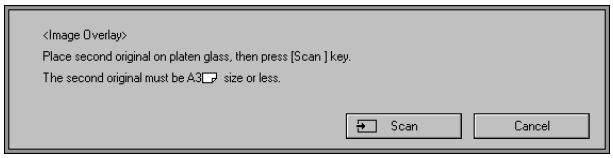
❒ If you want to re-scan the first original, set the original and touch the **[Scan]** key.




**5** Touch the **[2nd original]** key.

**6** Set the second original (original that has the image to be composed) on the exposure glass. Then touch the **[Scan]** key.

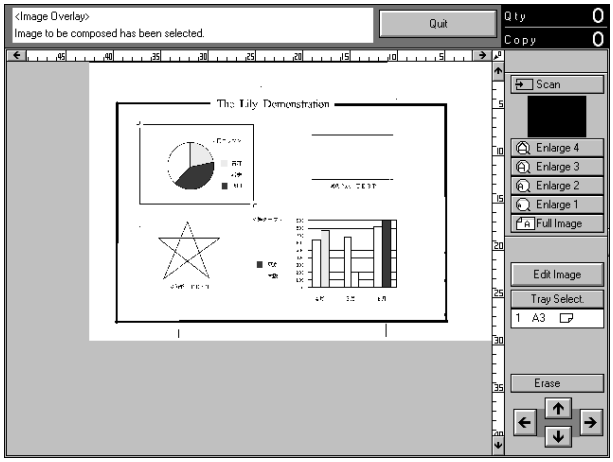
❒ The image of the second original is displayed.




**7** Mark diagonally opposite corners of area to be put into the first original.

❒ If you want to change the copy paper, touch the **[Tray Select]** key.

❒ If you want to edit the image that has been selected, touch the **[Edit Image]** key. Regarding image editing, ☛ see page 68.




**8** Press the **Start** key.

❒ The overlaid image is copied.

## Editing the image to be composed

You can edit the selected image.

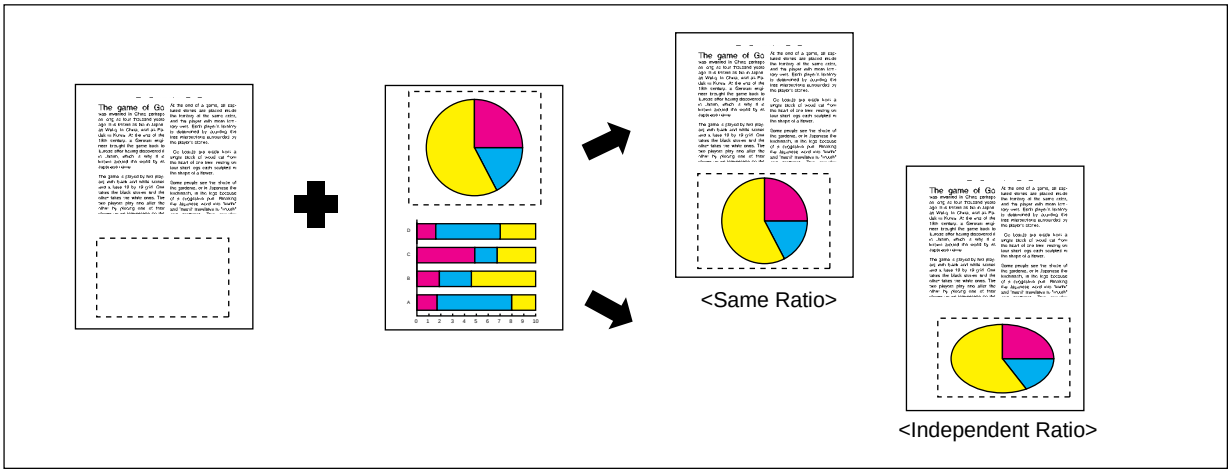
❒ The modes that can be set are as follows:

- Reduce/Enlarge : Preset R/E, Zoom, Auto R/E
- Color/Image : Copy Image Density Adjustment, Color Selection, Original Image Type (Photo/Letter) Selection, Image Adjustment, Single Color Adjustment, Color Balance Adjustment
- Color Creation : Color Conversion, Color Erase, Color Background

❒ You can reproduce the image to fit the area of the first original (Auto R/E function). There are two modes in Auto R/E function as follows:

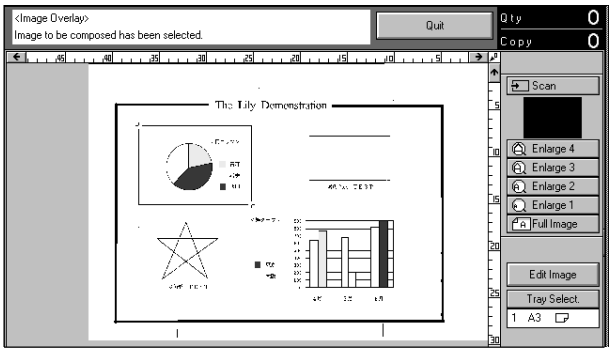
**[Same Ratio]** : This mode reproduces the image with the same ratios for horizontal and vertical direction, and puts it into the area of the first original.

**[Independent Ratios]** :This mode reproduces the image with the independent ratios for horizontal and vertical direction to fit the area of the first original.




### -Reducing/Enlarging

1 Touch the **[Edit image]** key.

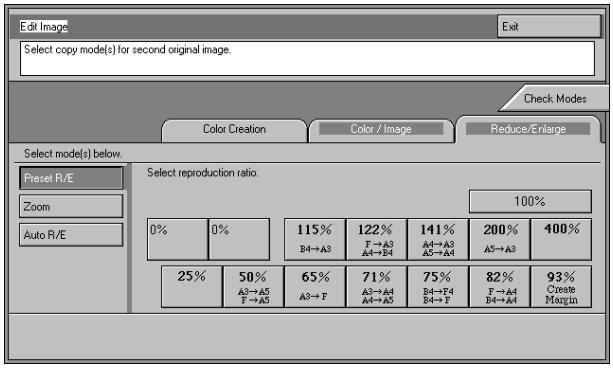



2 Make sure the **[Reducing/Enlarging]** key is selelcted.

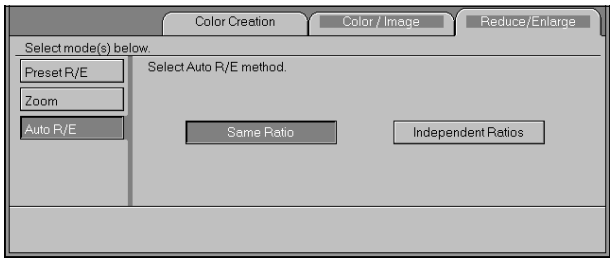
3 Select the **[Preset R/E]** key, **[Zoom]** key, or **[Auto R/E]** key.

❒ For details about Preset R/E, ☛ see page 45.

❒ For details about Zoom, ☛ see page 46.



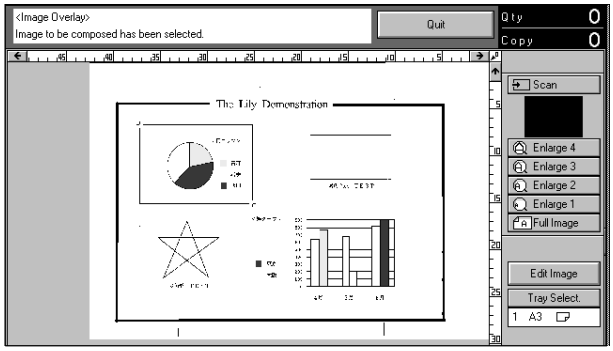
4 If you have selected the **[Auto R/E]** key, select the **[Same Ratio]** key or the **[Independent Ratios]** key.




5 Touch the **[Exit]** key.

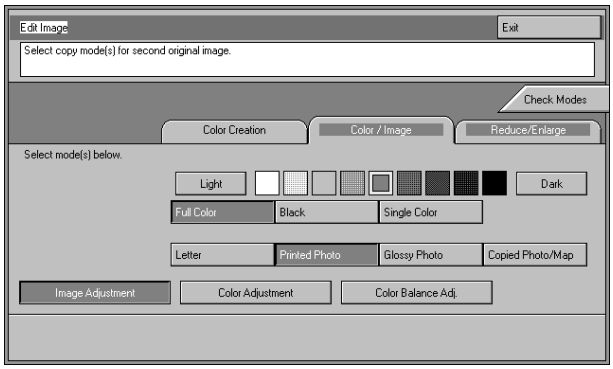
### -Color/Image

1 Touch the **[Edit image]** key.




2 Touch the **[Color/Image]** key.

3 Make any adjustments you require.




- ❒ Image Density, ☛ see page 31.
- ❒ Color Selection, ☛ see page 32.
- ❒ Original Image Type, ☛ see page 35.

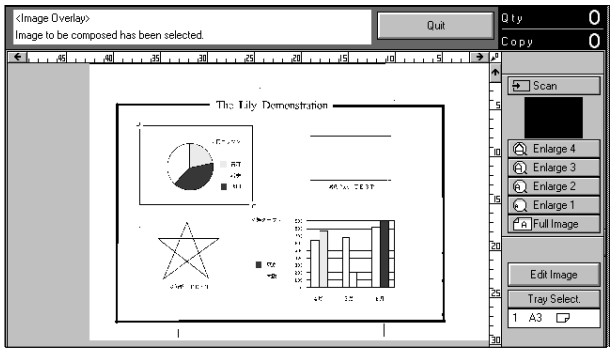
4 Make any adjustments you require.

- ❒ Image Adjustment, ☛ see page 83.
- ❒ Single Color Adjustment, ☛ see page 82.
- ❒ Color Balance Adjustment, ☛ see page 76.

5 Touch the **[Exit]** key.

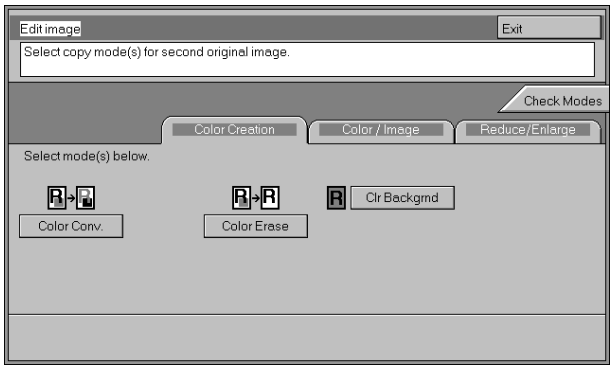
## -Color Creation

1 Touch the **[Edit image]** key.




2 Touch the **[Color Creation]** key.

3 Select the **[Color Conv.]** key, **[Color Erase]** key, or **[Clr Backgrnd]** key.




- ❒ Color Conversion, ☛ see page 55.
- ❒ Color Crase, ☛ see page 56.
- ❒ Color Background, ☛ see page 57.

4 Touch the **[Exit]** key.

# FINISHING

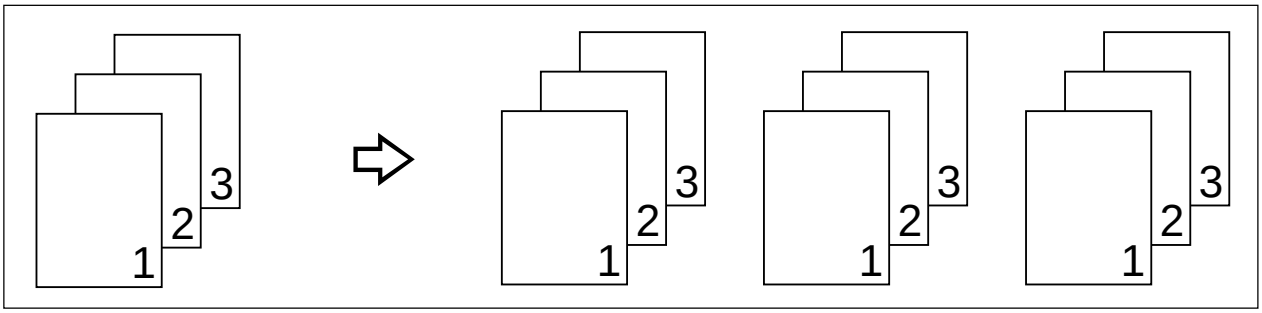
***NOTE:*** *This function can be used only when you have an optional sorter.*

***NOTE:*** *It is recommended to set originals in the dual job feeder with this function.*

❒ To avoid problems caused by curled copies, try turning over the paper stack in the paper tray. If there is no improvement, change to copy paper with less curl.

❒ Regarding functions that cannot be used together with this function, ☛ see page 73.

## Sorting Into Sets (123, 123, 123) (Sort)




One copy of each original is delivered to each bin and copies are collated into sets.

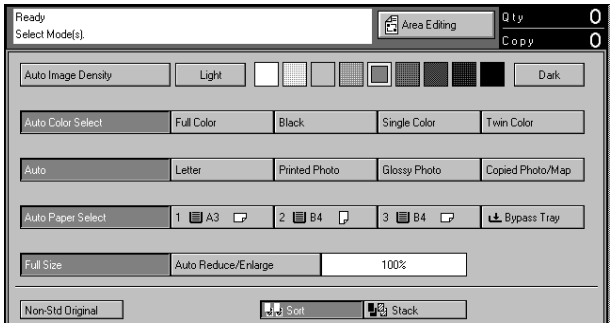
❒ For sorting, the following limitations apply:

| | Metric version | Inch version |
|---|---|---|
| Maximum paper size | A3 | 11" × 17" |
| Minimum paper size | B6□ | 5 1/2" × 8 1/2"□ |
| Maximum paper weight | 90 g/m$^2$ | 24 lb |
| Minimum paper weight | 50 g/m$^2$ | 14 lb |
| Maximum paper capacity of bins | 50 sheets (80 g/m$^2$) | 50 sheets (20 lb) |
| Paper that cannot be used | post cards, OHP transparencies, and adhesive labels | |

❒ Maximum copy set number: 15 sets

❒ You can make the copier select Sort mode automatically when you insert two or more originals in the dual job feeder and make two or more copies from each original. ☛ See page 130.

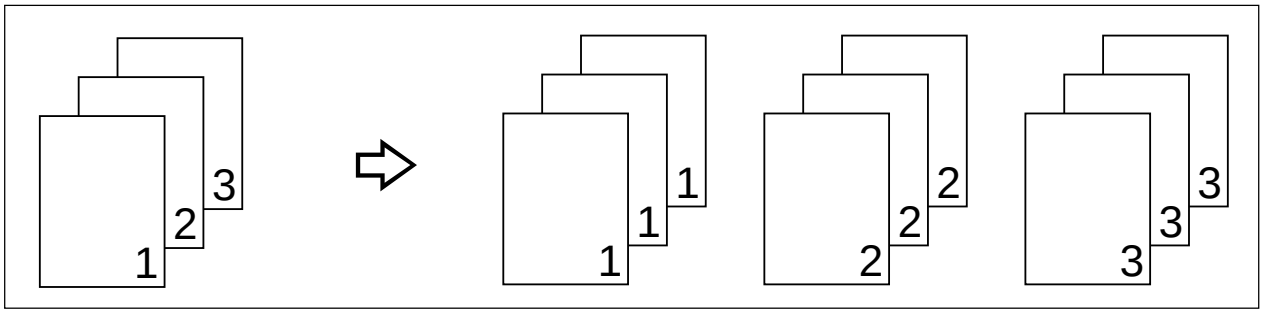
1 Touch the **[Sort]** key.




2 Set your originals in the dual job feeder.

3 Press the **Start** key.

## Stacking Together All Copies Of A Page (111, 222, 333) (Stack)



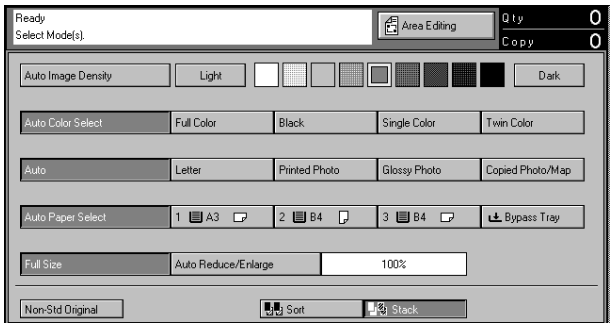

All copies of each original are delivered to the same bin.

❒ For stacking, the following limitations apply:

| | Metric version | Inch version |
|---|---|---|
| Maximum paper size | A3 | 11" × 17" |
| Minimum paper size | B6 | 5 1/2" × 8 1/2" |
| Maximum paper weight | 90 g/m² | 24 lb |
| Minimum paper weight | 50 g/m² | 14 lb |
| Maximum paper capacity of bins | 40 sheets (80 g/m²) | 40 sheets (20 lb) |
| Paper that cannot be used | post cards, OHP transparencies, and adhesive labels | |

❒ Maximum original set number: 15 originals

1 Touch the **[Stack]** key.




2 Set your originals in the dual job feeder.

3 Press the **Start** key.

# COMBINATION CHART

☆ : These modes can be used together.
★ : These modes can be used together with some limitations.
→ : The original mode is overridden and only the newly selected mode is active.
✗ : These modes cannot be used together.

| Original mode \ Newly selected mode | | | Density | | Color Selection | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| Density | 1 | Auto Image Density | | ☆ | → | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 2 | Manual Image Density | ☆ | | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| Color Selection | 3 | Auto Color Selection | ✗ | ☆ | | → | → | → | → | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 4 | Full Color | ☆ | ☆ | → | | → | → | → | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 5 | Black | ☆ | ☆ | → | → | | → | → | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 6 | Single Color | ☆ | ☆ | → | → | → | | → | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 7 | Twin Color | ☆ | ☆ | → | → | → | → | | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 8 | Original Image Type Selection | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 9 | Auto Paper Selection | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | | → | ☆ | ☆ | ☆ | ☆ | ✗ |
| | 10 | Auto Reduce/Enlarge | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | | ☆ | ☆ | ★ | ☆ | ✗ |
| | 11 | Interrupt Copying | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | | ✗ | ☆ | ✗ | ☆ |
| | 12 | Program | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | | ☆ | ☆ | ☆ |
| | 13 | Bypass Feed Copying/Duplex Copying | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | ★ | ☆ | ☆ | | ★ | ☆ |
| | 14 | Sort/Stack (Option) | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ★ | ☆ | | ☆ |
| | 15 | Non-standard Size Original | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ✗ | ☆ | ☆ | ☆ | ☆ | |
| Reducing/ Enlarging | 16 | Preset R/E | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | → | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 17 | Zoom | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | → | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 18 | Size Magnification | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | → | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 19 | Directional Size Magnification | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | → | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 20 | Poster Mode | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | → | → | ✗ | ☆ | ☆ | ✗ | ✗ |
| Shift/Book | 21 | Centering/Cornering | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 22 | Margin Adjustment | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ |
| | 23 | Erase | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ |
| | 24 | Series Copies | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ★ | ☆ | ☆ | ☆ | ☆ | ✗ |
| Image Creation | 25 | Color Conversion | ✗ | ☆ | ✗ | ☆ | ✗ | ✗ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 26 | Color Erase | ✗ | ☆ | ✗ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 27 | Color Background | ✗ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| Color Creation | 28 | Outline | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 29 | Positive/Negative | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 30 | Shadow | ☆ | ☆ | ✗ | ☆ | ★ | ★ | ★ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 31 | Mirror | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 32 | Slanted | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 33 | Image Repeat | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 34 | Image Overlay | ✗ | ☆ | ✗ | → | → | → | ✗ | → | ✗ | ✗ | ✗ | ✗ | ☆ | ✗ | ✗ |
| Color Adjustment/ Memory | 35 | User Color Memory | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | 36 | Single Color Adjustment | ☆ | ☆ | ☆ | ☆ | ★ | ★ | ★ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 37 | Color Balance Adjustment | ☆ | ☆ | ☆ | ☆ | ★ | ★ | ★ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 38 | Image Adjustment | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 39 | Film Projector (Option) | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ✗ | ☆ | ☆ | ☆ | ✗ |

| | | Reducing/Enlarging | | | | | Shift/Book | | | | Image Creation | | | Color Creation | | | | | | | Color Adjust-ment/Memory | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |
| Density | 1 | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | → | → | ☆ | ☆ | → | ☆ | ☆ | ☆ | → | ☆ | ☆ | ☆ | ☆ | → |
| | 2 | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| Color Selection | 3 | ☆ | ☆ | ☆ | ☆ | → | ☆ | ☆ | ☆ | ☆ | → | → | → | ☆ | ☆ | → | ☆ | ☆ | ☆ | → | ☆ | ☆ | ☆ | ☆ | → |
| | 4 | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 5 | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | ☆ | ☆ | ☆ | ☆ | → | ☆ | ☆ | ☆ | → | ☆ | ★ | ★ | ☆ | → |
| | 6 | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | ☆ | ☆ | ☆ | ☆ | → | ☆ | ☆ | ☆ | → | ☆ | ★ | ★ | ☆ | → |
| | 7 | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | ✗ | ☆ | ✗ | ☆ | → | ☆ | ☆ | ☆ | → | ☆ | ★ | ★ | ☆ | → |
| | 8 | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 9 | ☆ | ☆ | ☆ | → | → | → | ☆ | ☆ | ★ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | ☆ | ☆ | ☆ | ☆ | → |
| | 10 | → | → | → | → | → | ☆ | ☆ | ☆ | ★ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | → | ☆ | ☆ | ☆ | ☆ | → |
| | 11 | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ |
| | 12 | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 13 | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ★ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → |
| | 14 | ☆ | ☆ | ☆ | ☆ | → | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 15 | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ✗ | ✗ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ |
| Reducing/ Enlarging | 16 | | → | → | → | → | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | ☆ | ☆ | ☆ | ☆ | → |
| | 17 | → | | → | → | → | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | ☆ | ☆ | ☆ | ☆ | → |
| | 18 | → | → | | → | → | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | ☆ | ☆ | ☆ | ☆ | → |
| | 19 | → | → | → | | → | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | ☆ | ☆ | ☆ | ☆ | → |
| | 20 | → | → | → | → | | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ☆ | ✗ | ☆ | ✗ | ✗ | → | ☆ | ☆ | ☆ | ☆ | → |
| Shift/Book | 21 | ☆ | ☆ | ☆ | ☆ | ✗ | | ☆ | → | ★ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 22 | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 23 | ☆ | ☆ | ☆ | ☆ | ✗ | → | ☆ | | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ✗ | ☆ | ☆ | ☆ | ☆ | ★ |
| | 24 | ☆ | ☆ | ☆ | ☆ | ✗ | ★ | ☆ | ☆ | | ☆ | ☆ | ☆ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ☆ | ☆ | ☆ | ☆ | → |
| Image Creation | 25 | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ✗ | ☆ | ☆ | ☆ |
| | 26 | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ✗ | ☆ | ☆ | ☆ |
| | 27 | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ✗ | ☆ | ☆ | ☆ |
| Color Creation | 28 | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ✗ | ✗ | ✗ | ✗ | | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ✗ | ✗ | ✗ | ✗ | ☆ |
| | 29 | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 30 | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 31 | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 32 | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ |
| | 33 | ☆ | ☆ | ☆ | ☆ | ✗ | ✗ | ✗ | ✗ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | | ✗ | ☆ | ☆ | ☆ | ☆ | → |
| | 34 | ☆ | ☆ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ☆ | ☆ | ☆ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | | ☆ | ☆ | ☆ | ☆ | ✗ |
| Color Adjustment/ Memory | 35 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | ☆ | | – | – | – | – |
| | 36 | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | → | → | → | ☆ | ☆ | ☆ | ☆ | ☆ | → | ☆ | | ☆ | ☆ | ☆ |
| | 37 | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | ☆ | ☆ | ☆ | ☆ | ☆ | → | ☆ | ☆ | | ☆ | ☆ |
| | 38 | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | ☆ | ☆ | ☆ | ☆ | ☆ | → | ☆ | ☆ | ☆ | | ☆ |
| | 39 | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ★ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | |

# ADJUSTMENT AND COLOR MEMORY

# ADJUSTING AND STORING THE COLOR BALANCE (Color Balance)

This feature allows you to control the overall color tone of copies by adjusting the levels of the basic colors (Yellow, Magenta, and Cyan) as well as Black. Nine levels of tone are available.

❒ Color sample, ☛ See page 14.

❒ Your adjustment is cancelled after:

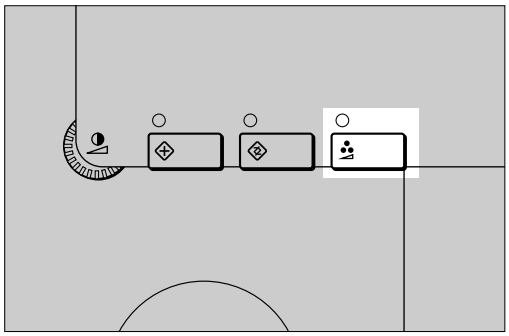
- Auto reset.
- The **Clear Modes/Stand by** key is pressed.
- The main switch is turned off.

❒ You can store and recall the adjusted color balance. ☛ See page 77.

❒ You can sample color balance. ☛ See page 78.

## Color Balance Adjustment

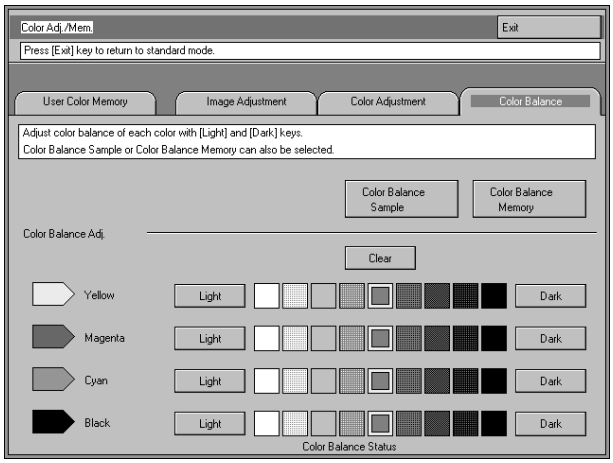
1 Press the **Adjustment/Memory** key.



2 Make sure the **[Color Balance]** key is selected.

3 Adjust the color balance.

❒ If you want to cancel the setting, touch the **[Clear]** key.




4 Touch the **[Exit]** key.

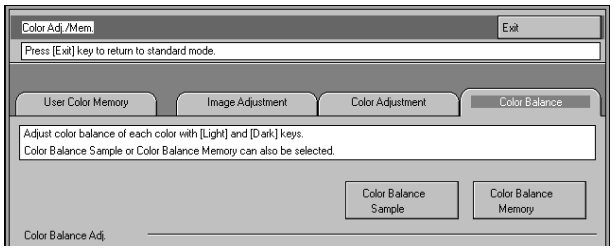
# Storing And Recalling The Color Balance (Color Balance Memory)

You can store the color balance setting in memory and recall it when you want to use it.

## Storing the adjusted color balance

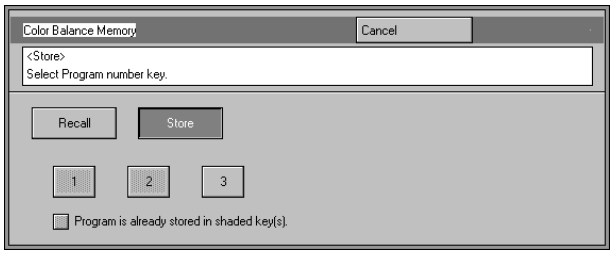
1. Change the color balance (☛ see page 76), but don't touch the **[Exit]** key.

2. Touch the **[Color Balance Memory]** key.


Color Adj./Mem.
Exit
Press [Exit] key to return to standard mode.
User Color Memory
Image Adjustment
Color Adjustment
Color Balance
Adjust color balance of each color with [Light] and [Dark] keys.
Color Balance Sample or Color Balance Memory can also be selected.
Color Balance Sample
Color Balance Memory
Color Balance Adj.

3. Touch the **[Store]** key.

4. Three settings may be stored – choose a number for this setting.




5. Touch the **[Exit]** key.

## Recalling the color balance

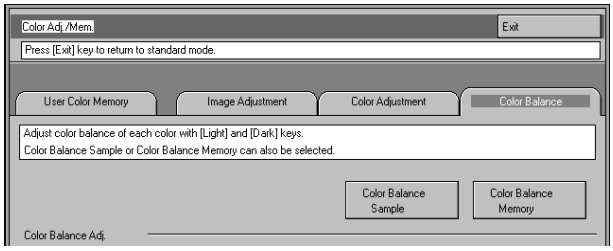
❒ The recalled color balance is canceled after:

- Copying is finished.
- Auto reset.
- The **Clear Modes/Stand by** key is pressed.

1. Press the **Adjustment/Memory** key.

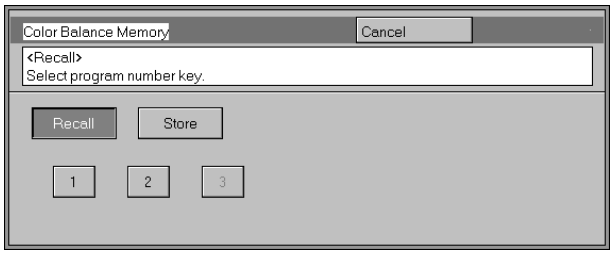
2. Make sure the **[Color Balance]** key is selected.

3. Touch the **[Color Balance Memory]** key.


Color Adj./Mem.
Exit
Press [Exit] key to return to standard mode.
User Color Memory
Image Adjustment
Color Adjustment
Color Balance
Adjust color balance of each color with [Light] and [Dark] keys.
Color Balance Sample or Color Balance Memory can also be selected.
Color Balance Sample
Color Balance Memory
Color Balance Adj.

4. Make sure the **[Recall]** key is selected.

5 Select the setting you want to recall.




6 Touch the **[Exit]** key.

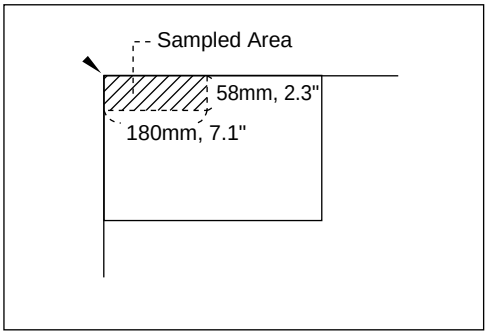
## Sampling The Color Balance (Color Balance Sample)

Adjusting the color balance by trial and error could require many copies. The color balance sampling function allows you to produce nine samples on two copies. The first sample of each sheet uses the current color balance (standard). Each sample after that changes one toner color by a fixed number of steps.

❒ The sample will be copied on two A4□, 8 1/2" × 11" □ sheets or two A3□, 11" × 17"□ sheets.

❒ Selecting Color Balance Sample does not reset the adjustments, allowing you to make many samples while progressively changing the balance. The sample might yield a color balance outside the copier's range which will be reproduced on the sample but not on the copy.
For example, if yellow is already adjusted to +3 and you select Sample ±4, the yellow samples will be copied at yellow +7 and –1, but the adjustment for the final copy cannot be set to +7.

❒ The sampled area is as shown in the illustration.

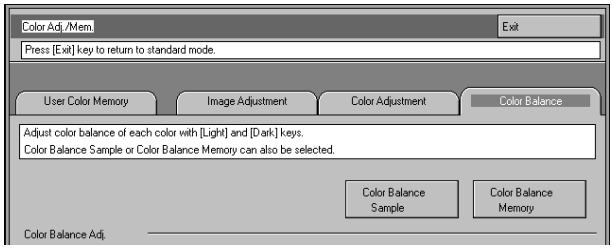



❒ If your machine is Edit type, you can select the sampled area. ☛ See page 79.

1 Press the **Adjustment/Memory** key.

2 Make sure the **[Color Balance]** key is selected.

3 Touch the **[Color Balance Sample]** key.

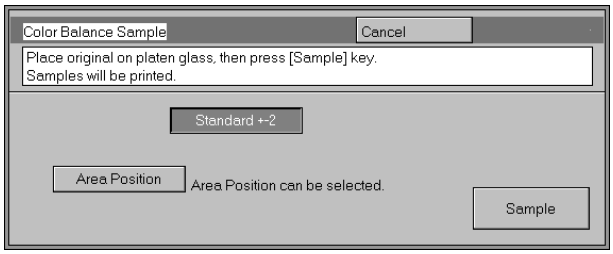

Color Adj./Mem.
Exit
Press [Exit] key to return to standard mode.
User Color Memory
Image Adjustment
Color Adjustment
Color Balance
Adjust color balance of each color with [Light] and [Dark] keys.
Color Balance Sample or Color Balance Memory can also be selected.
Color Balance Sample
Color Balance Memory
Color Balance Adj.

4 Select the range of densities (standard is the current setting).

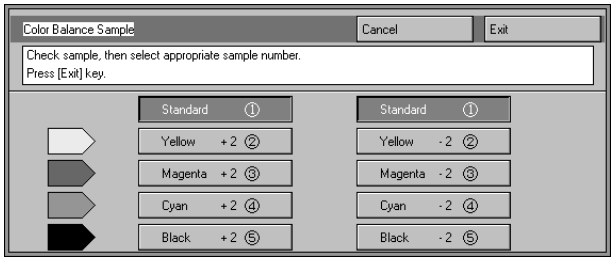
5 Set your originals on the exposure glass.

6 Touch the **[Sample]** key.

❒ The sample is copied.




7 Select the color balance that you want to set, then touch the **[Exit]** key.

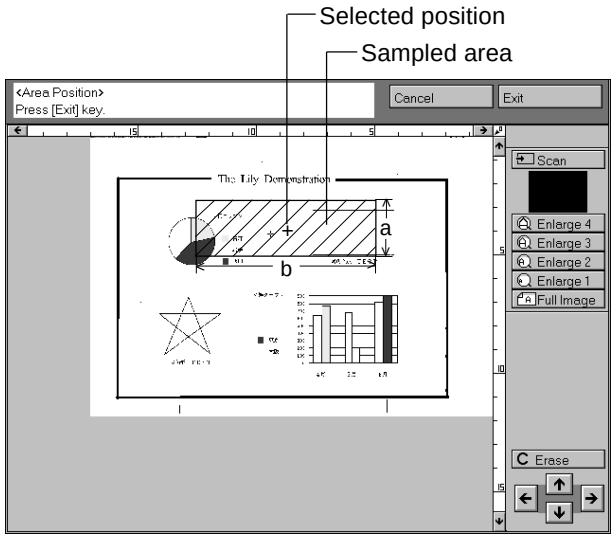



8 Touch the **[Exit]** key.

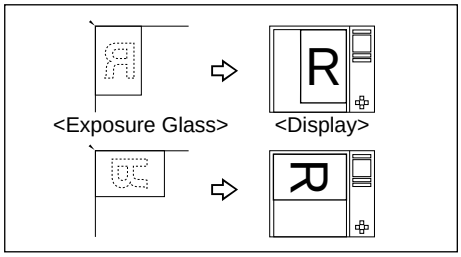
## Selecting the sampled area (Only for Edit type)

❒ The sampled area is as shown below.

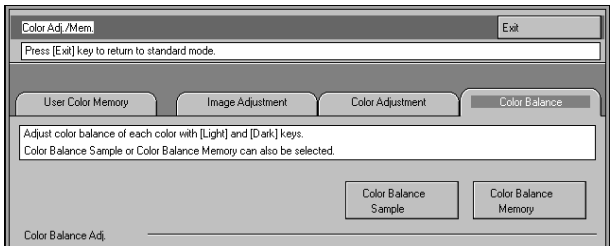
a: 58mm, 2.3"
b: 180mm, 7.1"



❒ Orientation of the original and scanned image are related as shown:

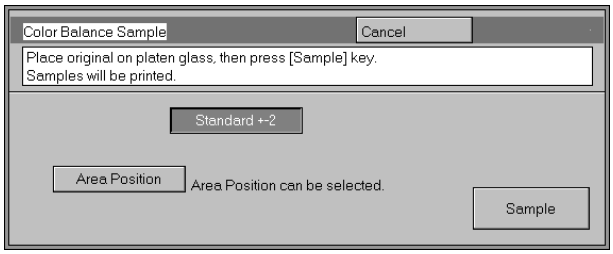



1. Press the **Adjustment/Memory** key.
2. Make sure the **[Color Balance]** key is selected.
3. Touch the **[Color Balance Sample]** key.


Color Adj./Mem.
Exit
Press [Exit] key to return to standard mode.
User Color Memory
Image Adjustment
Color Adjustment
Color Balance
Adjust color balance of each color with [Light] and [Dark] keys.
Color Balance Sample or Color Balance Memory can also be selected.
Color Balance Sample
Color Balance Memory
Color Balance Adj.

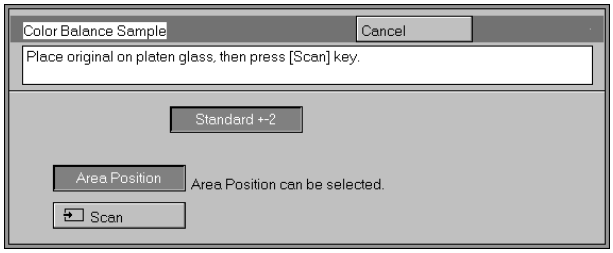
4. Select the range of densities (standard is the current setting).

5. Set your original on the exposure glass.
6. Touch the **[Area Position]** key.



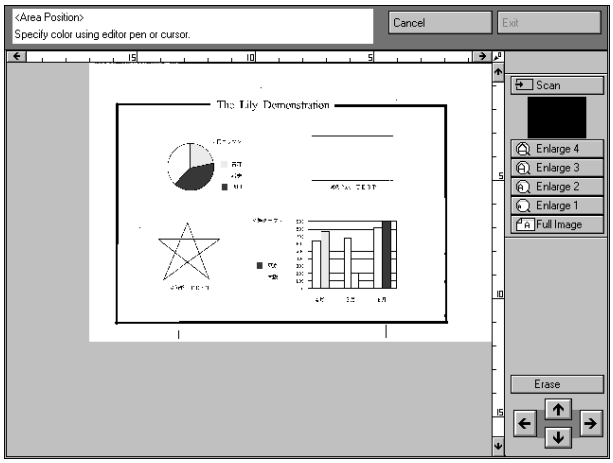

7. Set your original, then touch the **[Scan]** key.

❒ The image of the original is displayed.



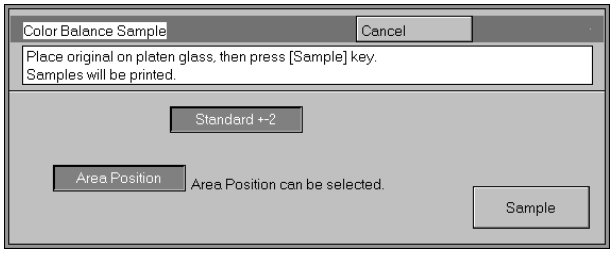
8 Point at the center of the area with the editor pen, then touch the **[Exit]** key.

❒ For details about this display, ☛ see page 92.

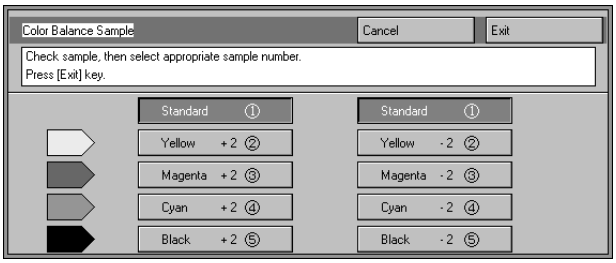



9 Touch the **[Sample]** key.

❒ The sample is copied.




10 Select the color balance that you want to set, then touch the **[Exit]** key.




11 Touch the **[Exit]** key.

# SINGLE COLOR ADJUSTMENT

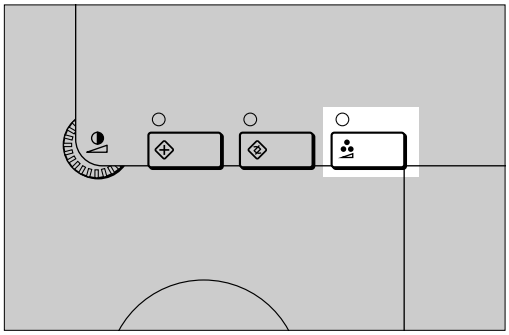
This function lets you alter up to three single colors by mixing them with adjacent colors in the color circle. For example, yellow can be shifted towards red to make orange, or towards green to make a lime-green. Note that only areas of the image containing this color will be modified.

❒ Color sample, ☛ see page 14.

❒ This feature requires Full Color mode or Auto Color mode.

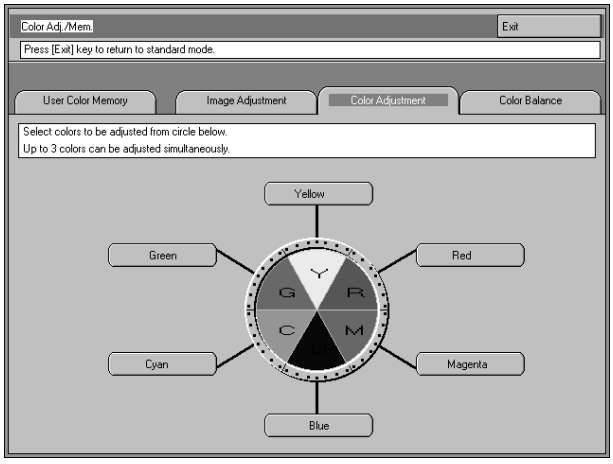
❒ The adjustment you make will be canceled after:
- Auto reset.
- The **Clear Modes/Stand by** key is pressed.
- The main switch is turned off.

**1** Press the **Adjustment/Memory** key.

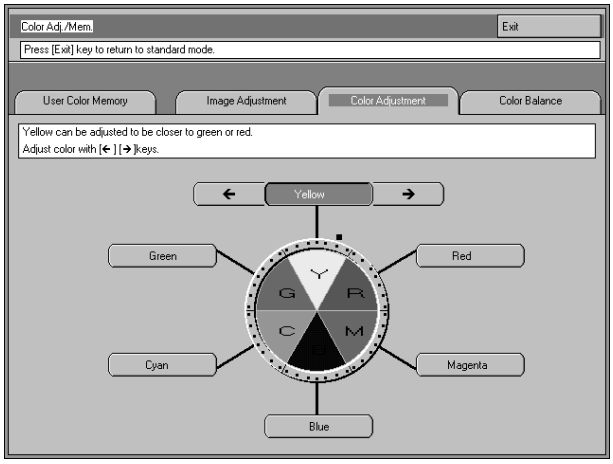


**2** Touch the **[Color Adjustment]** key.

**3** Select the color key that you want to adjust from the color circle.




**4** Adjust the color.




**5** Touch the **[Exit]** key.

# IMAGE ADJUSTMENT

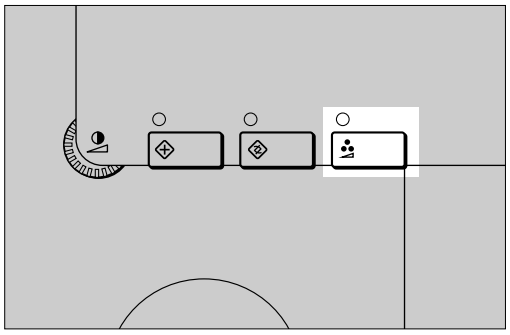
You can change the default settings for image adjustment as follows:

| | |
|---|---|
| Soft/Sharp | You can adjust the edges of the image to make the image sharper or softer.<br>❒ To see the color sample, ☛ see page 15.<br>❒ default : level 4 |
| Contrast | You can adjust the contrast between light parts and dark parts of the image.<br>❒ To see the color sample, ☛ see page 15.<br>❒ default : level 5 |
| Background Density | You can adjust the background density control.<br>❒ To see the color sample, ☛ see page 15.<br>❒ If copying a newspaper or an original with a dark background, touch the **Light** key and adjust the background density to a lighter setting.<br>❒ If part of the original is marked with a highlighting pen, touch the **Dark** key and adjust the background density to a darker setting.<br>❒ default : level 5 |
| Pastel | You can make copies in pastel tones.<br>❒ To see the color sample, ☛ see page 15.<br>❒ default : level 9 which yields a normal color copy |
| UCR Adjustment | You can adjust the black toner density to make the black parts clearer.<br>❒ default : level 5 |
| Color Sensitivity Adjustment | You can adjust the sensitivity level that detects whether the original has color parts or not when Auto Color Select mode is selected. If color parts or non-color parts of an original are not copied correctly in Auto Color Select mode, adjust this setting.<br>❒ default : level 3 |
| Letter/Photo Adjustment | You can adjust the evaluation level that detects letter parts and photo parts of an original when Auto (Letter/Photo) mode is selected. If letter parts and photo parts of an original are not separated correctly, adjust this setting.<br>❒ default : level 5 |

❒ The settings in Sharp/Soft, Contrast, Background Density Control and Pastel Color are canceled under the following conditions:

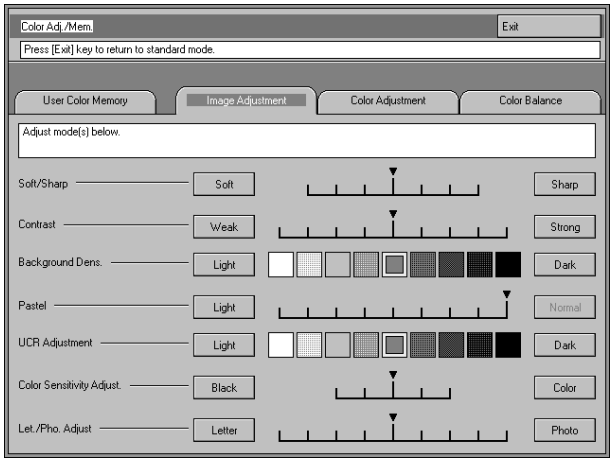
- The copier is auto reset.
- The **Clear Modes/Stand by** key is pressed.
- The main switch is turned off.

**1** Press the **Adjustment/Memory** key.



2 Touch the **[Image Adjustment]** key.

3 Adjust the settings.




4 Touch the **[Exit]** key.

# STORING USER COLORS (User Color Memory)

In addition to the base colors, you can store up to 12 customized colors into memory (User Color).

❒ There are two ways to make user colors as follows:

- Adjusting a selected base color
- Mixing colors manually with **Number** keys

❒ Up to 12 colors can be stored.

❒ The total percentages of the mixed colors must be 255% or less.

❒ If the total percentage of the mixed color is over 255%, the copier cannot create the color properly and the results will appear different.

❒ If the total percentage of the mixed colors is too low, it may not be bonded to the paper properly resulting in a change in image density.

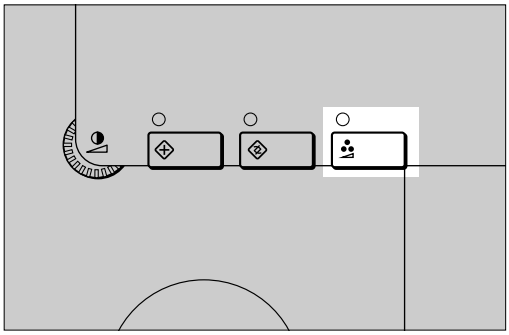
❒ Color chart, ☛ see page 18.

❒ If your machine is Edit type, you can sample the user color. ☛ See page 88.

❒ The appearance of user colors might vary slightly according to the Image Type you have selected (ex. Photo, Letter, etc.).

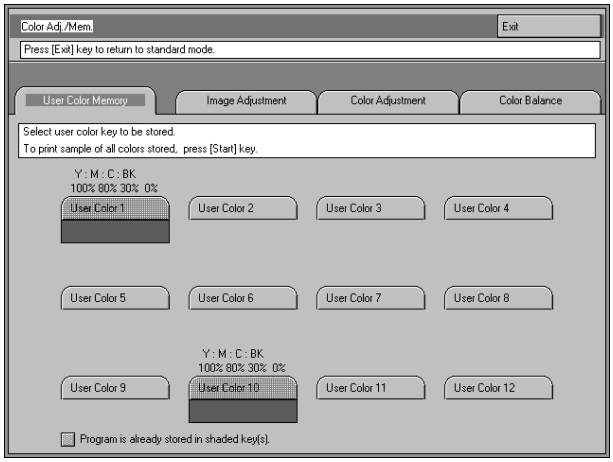
## Adjusting Colors Based On The Selected Color

1 Press the **Adjustment/Memory** key.

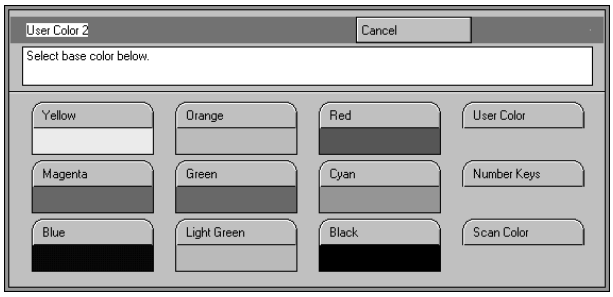


2 Touch the **[User Color Memory]** key.

3 Select the key you wish to store the color in.



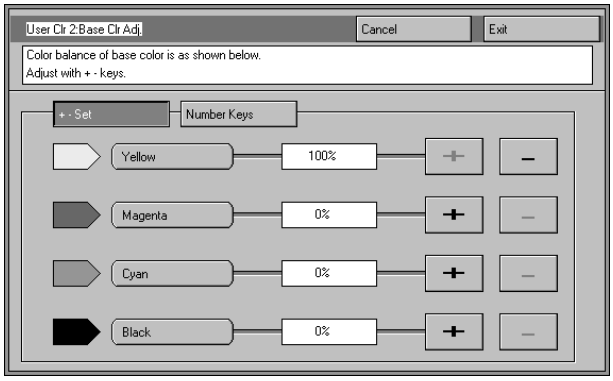
**4** Select the base color.




❒ If your machine is Edit type, you can scan in a color. ☛ See page 34.

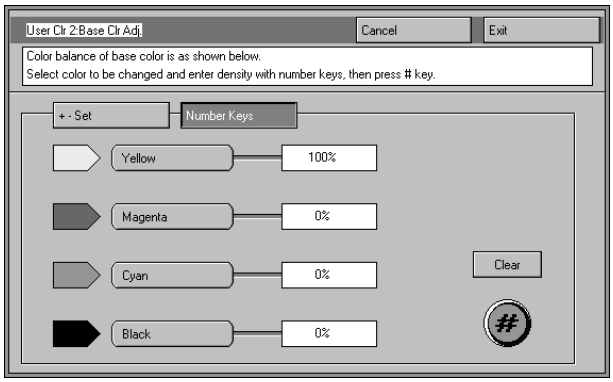
❒ If you want to mix colors manually with **Number** keys, touch the **[Number keys]** key. ☛ see page 87.

**5** You can change the color density in two ways.




❒ Increase or decrease in steps — touch the **[+ – Set]** key.

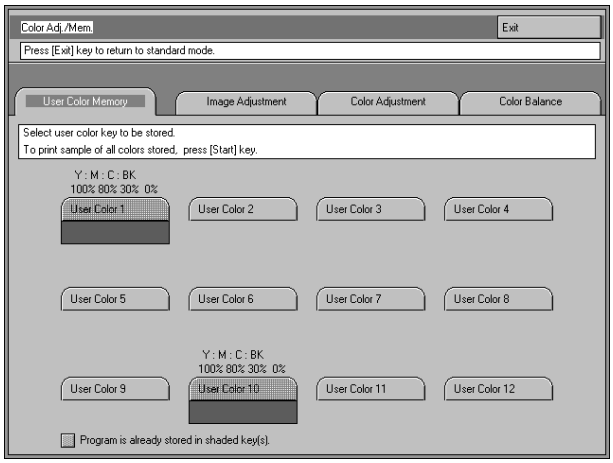
❒ Enter the percentage with the **Number** keys — touch the **[Number Keys]** key.



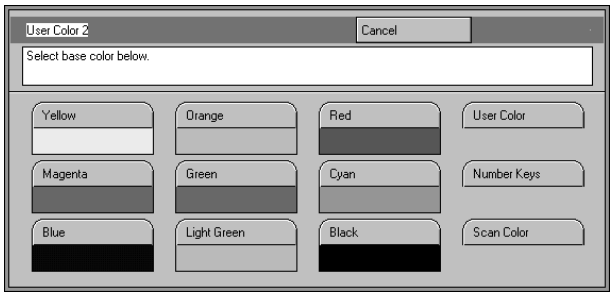

**6** Touch the **[Exit]** key.

## Mixing Colors Manually With The Number Keys

1. Press the **Adjustment/Memory** key.
2. Touch the **[User Color Memory]** key.
3. Select the number that you want to store the user color in.

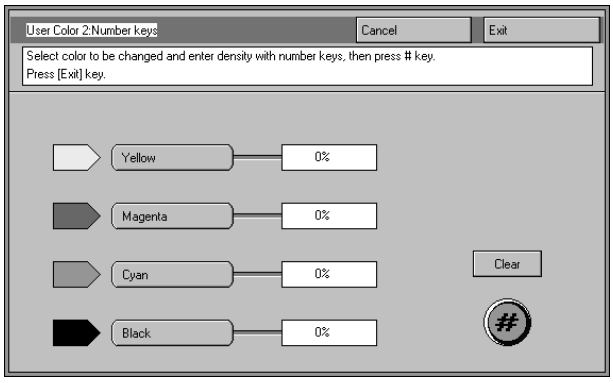



4. Touch the **[Number keys]** key.




5. Select the color that you want to adjust.
6. Enter the density, then touch the **[#]** key.

❒ To change the number, touch the **[Clear]** key.



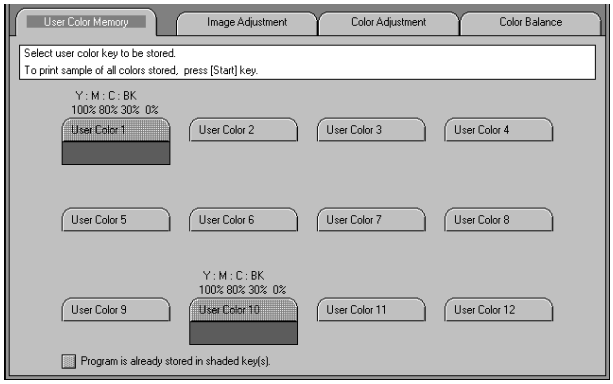

7. Repeat steps 5 and 6 for each color then touch the **[Exit]** key.
8. Touch the **[Exit]** key.

# Sampling The User Color (Only for Edit type)

You can print out a sample of User Colors to check the colors you have made.

❒ The sample will be copied on a A4□, 8 1/2" × 11" □ sheet or a A3□, 11" × 17"□ sheet.

1. Press the **Adjustment/Memory** key.
2. Touch the **[User Color Memory]** key.
3. Press the **Start** key.

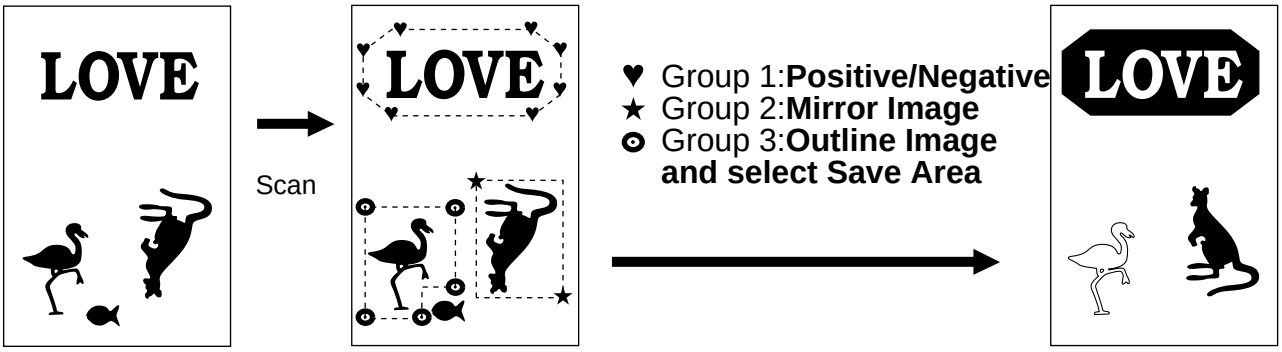

User Color Memory
Image Adjustment
Color Adjustment
Color Balance
Select user color key to be stored.
To print sample of all colors stored, press [Start] key.
Y : M : C : BK
100% 80% 30% 0%
User Color 1
User Color 2
User Color 3
User Color 4
User Color 5
User Color 6
User Color 7
User Color 8
Y : M : C : BK
100% 80% 30% 0%
User Color 9
User Color 10
User Color 11
User Color 12
Program is already stored in shaded key(s).

# AREA EDITING (Only for Edit type)

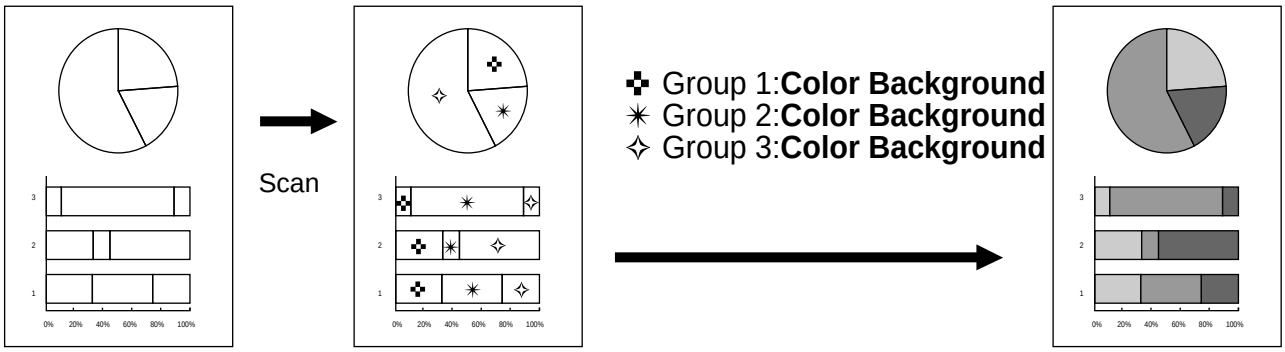
# WHAT IS AREA EDITING?

If your machine is Edit type, you can select areas of an image to be treated differently or have effects applied to them. Some examples are shown below.

Example:




Original | Designate areas (There is an area in each group.) | Specify modes for each group. | Copy




Original | Designate areas (There are 4 areas in each group.) | Specify modes for each group. | Copy

❒ "Group" means a set of areas that you want to do the same edit.

# HOW TO EDIT AREAS

Editing an image involves scanning it in to memory, choosing areas to edit and how those areas will be reproduced.

The basic steps are summarized below. Details are given in the rest of this section.

1 Enter Area Editing mode.

❒ Touch the **[Area Editing]** key.

↓

2 Scan in the image.

❒ Touch the **[Scan]** key.

↓

3 Designate areas.

❒ ☛ See page 92.

↓

4 Select modes.

❒ ☛ See page 98.

↓

5 Specify more areas to be treated differently (optional).

❒ Repeat 3 and 4.

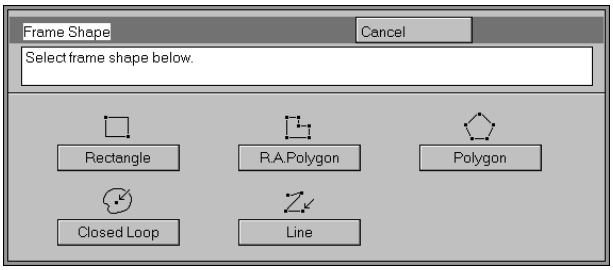
↓

6 Copy image.

❒ Press the **[Start]** key.

# DESIGNATING AREAS

Several tools are provided for designating areas of an image.

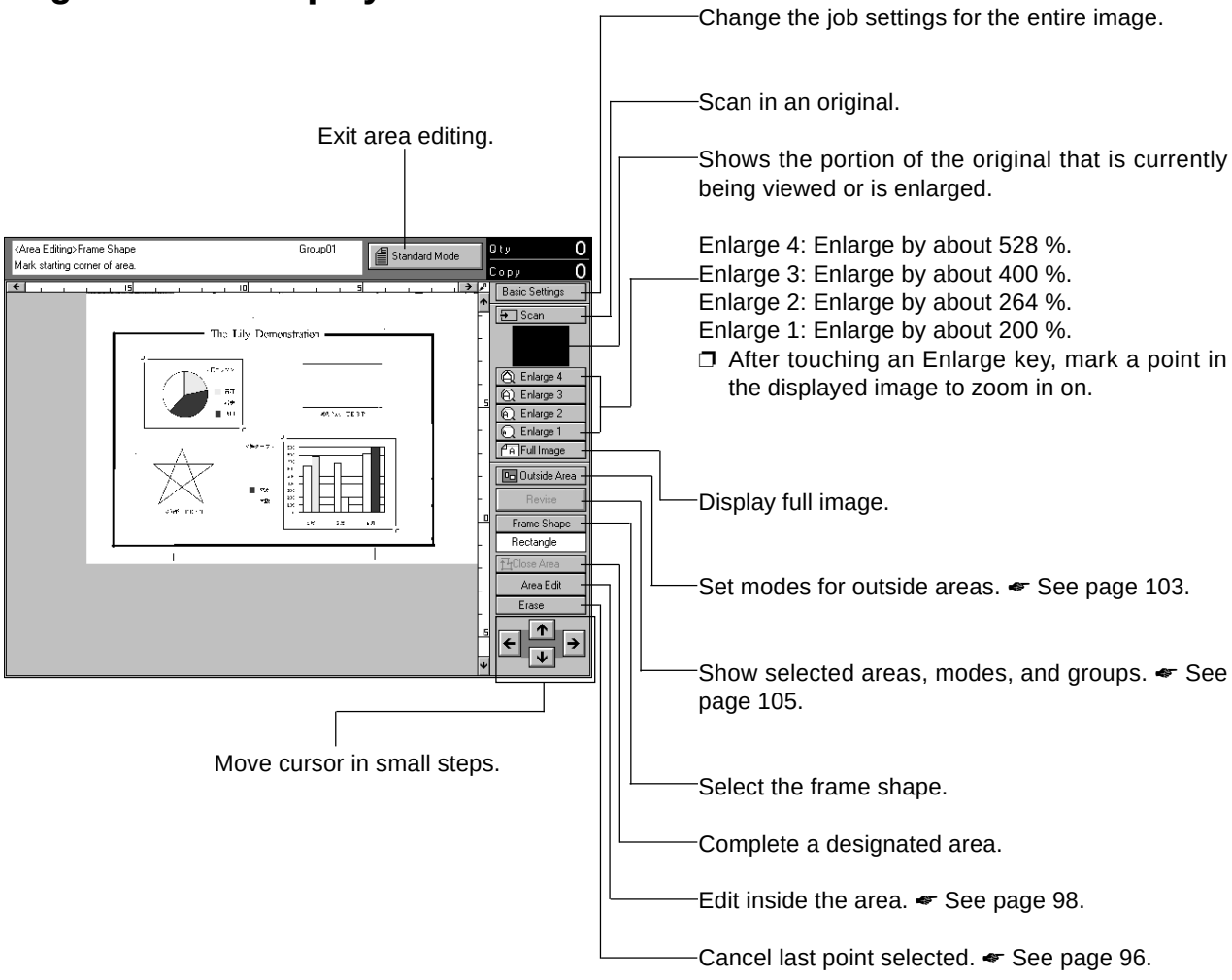



- Rectangle: Specify two points defining the opposite diagonals of a rectangle.
- Polygon/Right Angle Polygon: Specify a sequence of points defining a polygon.
- Closed Loop: If your image contains a shape outlined in black and that outline forms a closed loop, specify a point inside the shape to designate it.
- Line: Specify a series of points linked together by straight lines.

❒ You can designate many areas and apply the same changes to them all by placing them in the same Group.

❒ Different areas may be treated differently by placing them in different Groups.

## Designate Area Display


Change the job settings for the entire image.
Scan in an original.
Exit area editing.
Shows the portion of the original that is currently being viewed or is enlarged.
Enlarge 4: Enlarge by about 528 %.
Enlarge 3: Enlarge by about 400 %.
Enlarge 2: Enlarge by about 264 %.
Enlarge 1: Enlarge by about 200 %.
❒ After touching an Enlarge key, mark a point in the displayed image to zoom in on.
Display full image.
Set modes for outside areas. ☛ See page 103.
Show selected areas, modes, and groups. ☛ See page 105.
Move cursor in small steps.
Select the frame shape.
Complete a designated area.
Edit inside the area. ☛ See page 98.
Cancel last point selected. ☛ See page 96.
<Area Editing>Frame Shape
Mark starting corner of area.
Group01
Standard Mode
Qty 0
Copy 0
Basic Settings
Scan
Enlarge 4
Enlarge 3
Enlarge 2
Enlarge 1
Full Image
Outside Area
Revise
Frame Shape
Rectangle
Close Area
Area Edit
Erase

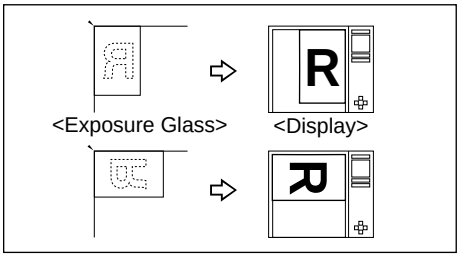
***Note**: Do not press the touch panel display with any hard or sharp object. Always use the editor pen.*

❒ When you mark a point with the editor pen, the cursor position might not be quite right. In this case, move the cursor in small steps by touching the arrow keys on the display.

# Designate Area Tools

❒ You cannot use the optional dual job feeder in this function.

❒ The relationships between the position of the original and the orientation of the scanned image on the display are as follows:



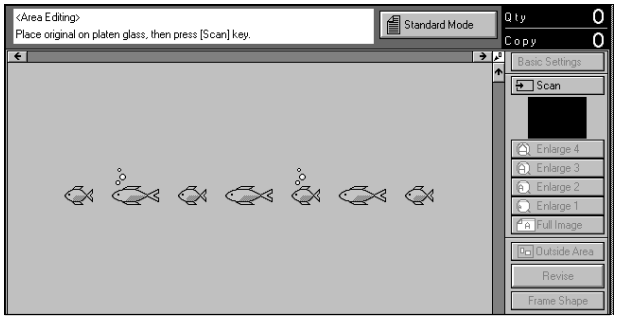

## Rectangle

1 Touch the **[Area Editing]** key.

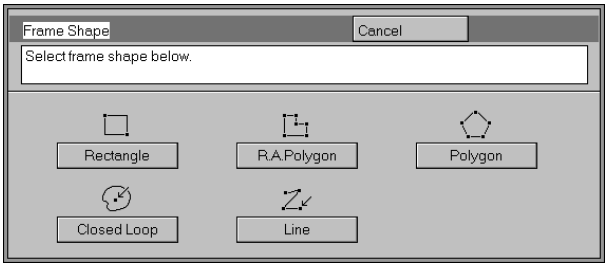
2 Set your original on the exposure glass.

3 Touch the **[Scan]** key.

❒ After a few seconds the image is displayed and the shape menu comes up.



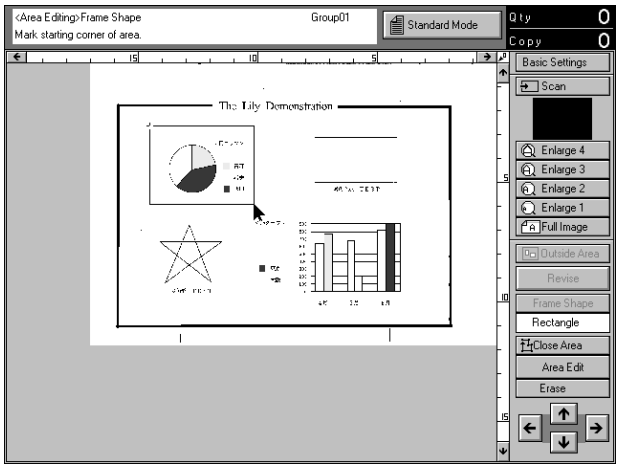

4 Touch the **[Rectangle]** key.




5 Mark the first point with the editor pen.

6 Mark the diagonally opposite corner of the area you wish to select.

❒ Repeat steps 5 and 6 to add more rectangles.



7 Touch the **[Close Area]** key.

❒ If you wish to designate more areas with different shapes, touch the **[Frame Shape]** key.

8 Touch the **[Edit Area]** key, specify your settings and press the **Start** key.

❒ Regarding the Area editing, ☛ see page 98.

## Right Angle Polygon and Polygon

1 Touch the **[Area Editing]** key.

2 Set your original on the exposure glass.

3 Touch the **[Scan]** key.

❒ After a few seconds the image is displayed and the shape menu comes up.

4 Touch the **[R.A. Polygon]** key or the **[Polygon]** key.

5 Mark the first point with the editor pen.

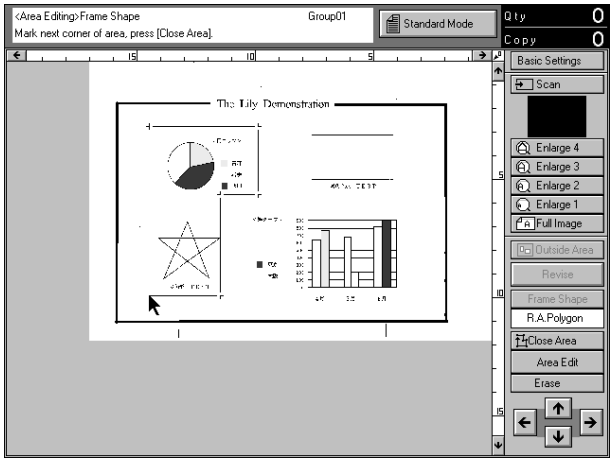
6 Mark the next points.

❒ When you use Right Angle Polygon mode, mark points that make right angles.

7 After marking the last point, touch the **[Close Area]** key.

❒ The points are joined up.

❒ If you wish to designate more areas with different shapes, touch the **[Frame Shape]** key.




8 Touch the **[Area Edit]** key, specify your settings and press the **Start** key.

❒ Regarding the Area editing, ☛ see page 98.

## Closed Loop

1 Touch the **[Area Editing]** key.

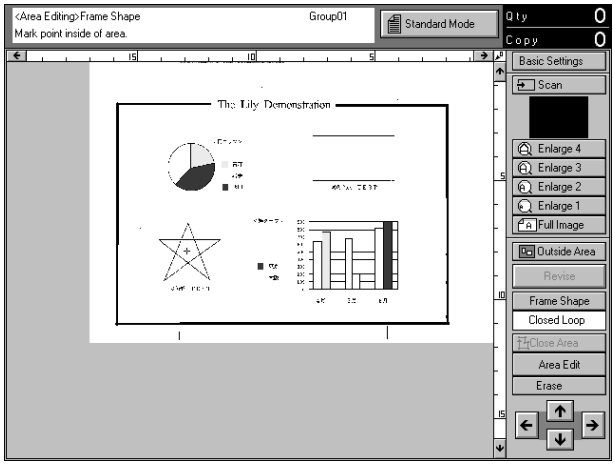
2 Set your original on the exposure glass.

3 Touch the **[Scan]** key.

❒ After a few seconds the image is displayed and the shape menu comes up.

4 Touch the **[Closed Loop]** key.

5 Touch on a point inside a closed loop.




6 Touch the **[Close Area]** key.

❒ Repeat steps 5 and 6 to add more closed loops.

❒ If you wish to designate more areas with different shapes, touch the **[Frame Shape]** key.

7 Touch the **[Area Edit]** key, specify your settings and press the **Start** key.

❒ Regarding the Area editing, ☛ see page 98.

## Line

❒ Areas you select as lines can only have Color Line applied to them in Area Editing.

1 Touch the **[Area Editing]** key.

2 Set your original on the exposure glass.

3 Touch the **[Scan]** key.

❒ After a few seconds the image is displayed and the shape menu comes up.

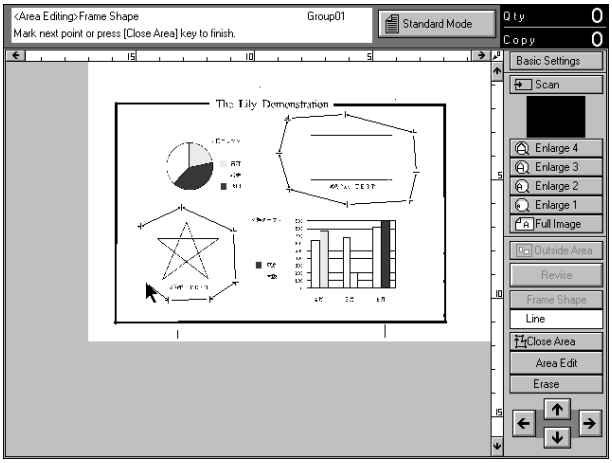
4 Touch the **[Line]** key.

5 Mark the first point with the editor pen.

6 Mark the next points.

**7** After marking the last point, touch the **[Close Area]** key.

❒ Repeat steps 5 ~ 7 to add more lines.




**8** Touch the **[Area Edit]** key, specify your settings and press the **[Start]** key.

❒ Regarding the Area editing, ☛ see page 98.

## If You Make A Mistake

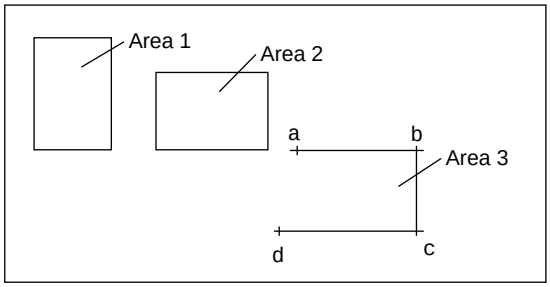
If the point you select on the image is in the wrong position or you wish to remove an area from your selection, touch the **[Erase]** key to erase the last selections.

Note, However, that:

❒ If you have already touched the **[Close Area]** key, entire shapes are de-selected.

❒ If you have not touched the **[Close Area]** key, single points are de-selected.

❒ For example, in the case as shown below, by touching the **[Erase]** key, the points of the area 3 are cleared in order of d → c → b → a, then the area 2 is cleared, and then the area 1 is cleared.




❒ If you want to clear all areas of the group, ☛ see page 105.

# Notes for Designating Areas

## The number of the points, areas, and groups that can be designated

❒ Maximum number of points: 500

❒ In Right Angle Polygon mode, Polygon mode, or Line mode, the maximum number of points for one area is 30.

❒ The number of areas that can be designated is as follows:

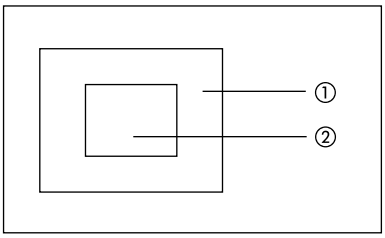
- Rectangle mode: maximum 250 areas
- Right Angle Polygon mode, Polygon mode, or Line mode: 500 points maximum. For example, if 10 points are designated for each area, the maximum number of areas that can be designated is 50.
- Closed Loop mode: maximum 500 areas

❒ Maximum number of groups: 15
(“Group” means a set of areas that you want to do same editions.)

## Notes

❒ Do not designate an area or line which overlaps part of another area or line. If an area overlaps another one, the job settings specified last will be applied to the overlapped portion or those areas might not be copied.

❒ However, areas containing areas (see below) are permitted. Designate starting with the outermost area.




These operations are available, however, under the following conditions:

- When designating areas with Closed Loop mode or Line mode
- When designating areas with Rectangle mode, Right Angle Polygon mode, or Polygon mode, and selecting Frame Line mode

❒ If you mark a line and it overlaps another line you have previously marked, the last point you marked will be canceled automatically.

❒ If you designate an area in Right Angle Polygon mode, make sure to mark points that make right angles. If you mark a point which does not match, the editor will automatically correct it to make a right angle.

❒ If you want to designate a triangular area, use Polygon mode.

❒ In Closed Loop mode, the machine might not detect a closed loop area completely under the following conditions:

- The outline is not completely closed, it is too light to detect, or the thickness is uneven.
- The outline is thinner than 0.3 mm.
- The outline is not black.
- The space between two closed loop outlines is less than 1 mm.

❒ The more areas you designate, the more time copying will take.

❒ If you erase an area, group, or job setting, it is cleared from the display. However, the points are still stored in memory and are not cleared until you exit Area Editing. This affects the maximum number of areas you can designate.

❒ Closed Loop mode and Line mode cannot be used with Rectangle mode, Right Angle Polygon mode, and Polygon mode for one group at a time.

# SELECTING MODES FOR DESIGNATED AREAS

❒ Up to 15 groups of multiple areas can be edited. All the areas should belong to groups 1 ~ 15.
You can select up to three job patterns for at most 15 groups. After you have set three patterns, the copier will only allow you to choose the pattern of a previous group.
If you change the settings for one group, it will change the settings for all other groups with the same job pattern. However, if you have set a Paint, Color Background, Frame Line, or Color Line mode, changing the color in one group will not affect other groups. (Up to 15 colors can be selected.)

❒ The available modes for area editing depend on the shape of the area. ☛ See page 110.

❒ Regarding functions that cannot be used together in area editing, ☛ see page 110.

❒ More than one mode can be set for designated area, however, there are some limitations, ☛ see page 110. And up to 3 patterns of modes can be set together.

❒ The modes that can be set for inside areas as follows:

- Color/Image Adjustment: Copy Image Density Adjustment, Color Selection, The Original Image Type (Photo/Letter) Selection, Image Adjustment, Single Color Adjustment, Color Aalance Adjustment
- Color Creation: Color Conversion, Color Erase, Color Background, Paint, Frame Line, Color Line
- Image Creation: Outline, Shadow, Slanted, Mirror, Positive/Negative

❒ Depending on the shapes of the areas, coloring or deleting near the outlines of the areas might not do well, or the outlines might become uneven.

❒ You can set Slanted Image mode for only one area.

❒ The way to set modes is basically the same as for the entire image. For details, refer to each page.

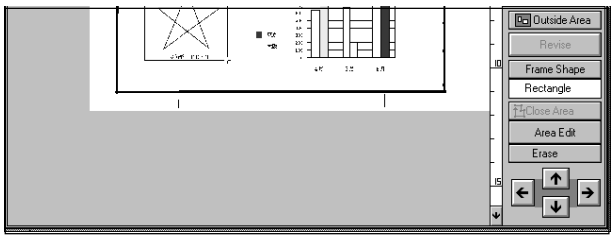
- Copy Image Density Adjustment ☛ See page 31.
- The Original Image Type (Photo/Letter) Selection ☛ See page 35.
- Single Color Adjustment ☛ See page 82.
- Color Conversion ☛ See page 55.
- Color Background ☛ See page 57.
- Frame Line ☛ See page 99.
- Color Line ☛ See page 99.
- Outline ☛ See page 58.
- Slanted ☛ See page 61.
- Positive/Negative ☛ See page 63.
- Color Selection ☛ See page 32.
- Image Adjustment ☛ See page 83.
- Color Balance Adjustment ☛ See page 76.
- Color Erase ☛ See page 56.
- Paint ☛ See page 100.
- Shadow ☛ See page 59.
- Mirror ☛ See page 62.

## Basic Modes

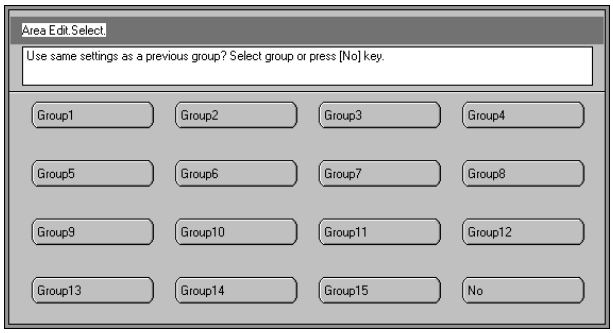
**1** Designate the areas you wish to modify.

❒ Regarding designating areas, ☛ see page 92.

**2** Touch the **[Area Edit]** key.




**3** When you have already set modes for other groups, the display as shown right is displayed. If you want to use the same modes as previous area, select the group. If you want to set new modes, touch the **[No]** key.

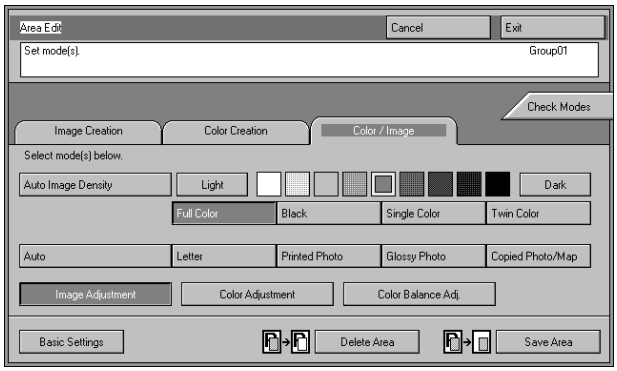


4 Touch the **[Color/Image]** key, the **[Color Creation]** key, or the **[Image Creation]** key.

❒ If you want to select paper size, touch the **[Basic Settings]** key.

5 Set modes.

6 Touch the **[Exit]** key.



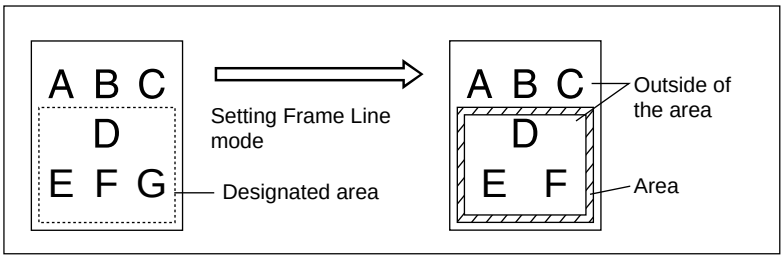

7 Press the **Start** key.

## Coloring Frames And Lines (Frame Line/Color Line)

You can color the outlines of designated areas (Frame Line), or color designated lines (Color Line).

❒ When you designate areas with Line mode, only Color Line mode can be used.

❒ When you select Frame Line mode, the designated area becomes as shown in the illustration.




❒ Frame Line mode and Color Line mode do not work with other modes. Selecting these modes cancel previous modes.

❒ Line widths:

Metric version: 0.25 ~ 2.0 mm (in 0.25 mm steps)

Inch version: 0.01" ~ 0.08" (in 0.01" steps)

❒ The line width might be uneven depending on the angle of the line.

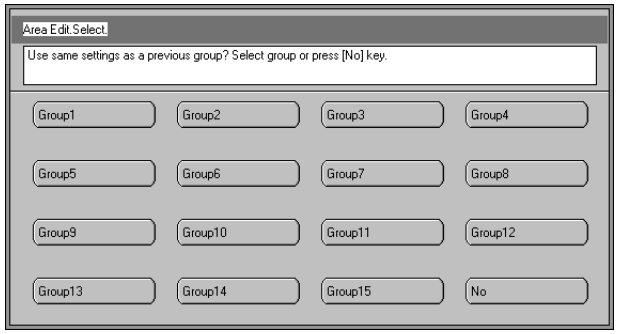
❒ Line widths varies according to the enlargement/reduction ratio.

1 Designate the areas you wish to modify.

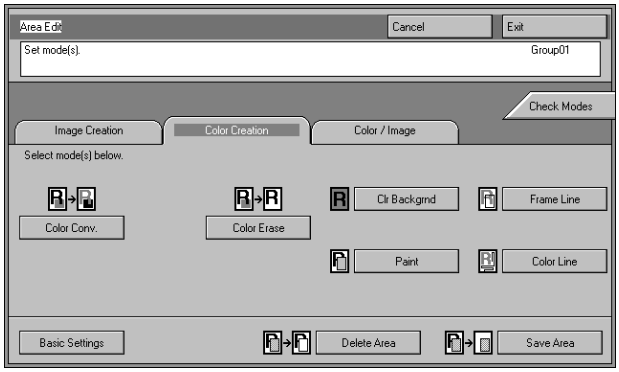
❒ Regarding designating areas, ☛ see page 92.

2 Touch the **[Area Edit]** key.

3 When you have already set modes for other groups, the display as shown right is displayed. If you want to use the same modes as previous area, select the group. If you want to set new modes, touch the **[No]** key.



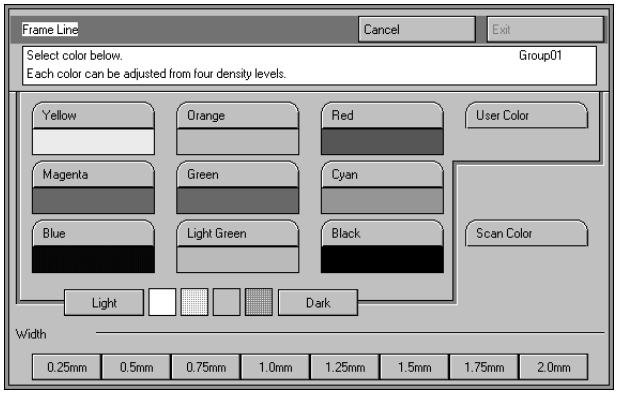
4 If the Frame Line menu or Color Line menu is not displayed, touch the **[Color Creation]** key followed by the **[Frame Line]** key or **[Color Line]** key.




5 Select the color and the width of the line.

❒ You can scan in the color. ☛ See page 34.

❒ The density (except for scan color) can be lightened or darkened.

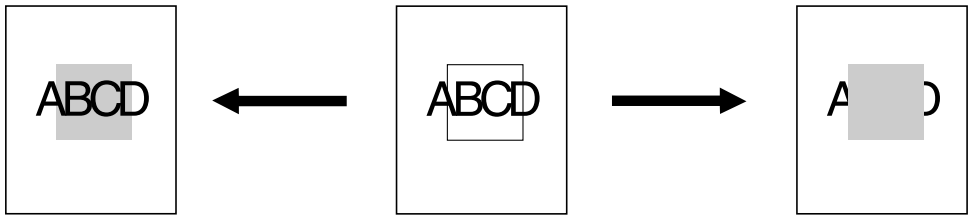



6 Touch the **[Exit]** key.

## Painting An Area (Paint)

You can fill the designated area with a selected color.

❒ Note that Paint mode and Color Background mode are different:




Color Background Original Image Paint

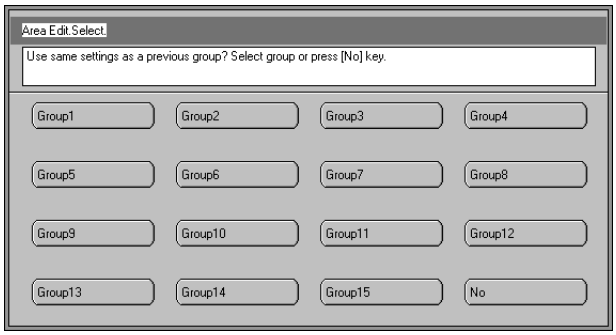
❒ When you designate the area with Closed Loop mode, painting near the outlines of the areas might not work well or the outlines might become uneven.

1 Designate the areas you wish to modify.

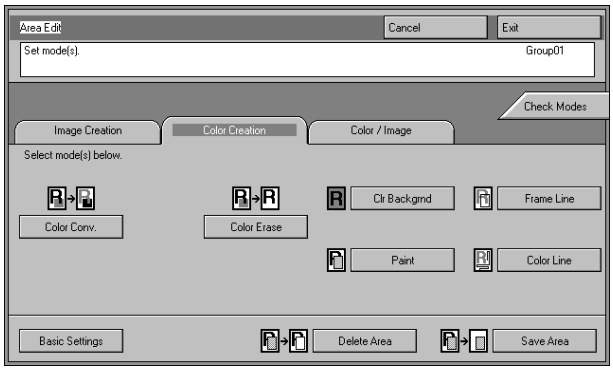
❒ Regarding designating areas, ☛ see page 92.

2 Touch the **[Area Edit]** key.

**3** When you have already set modes for other groups, the display as shown right is displayed. If you want to use the same mode as previous area, select the group. If you want to set new mode, touch the **[No]** key.



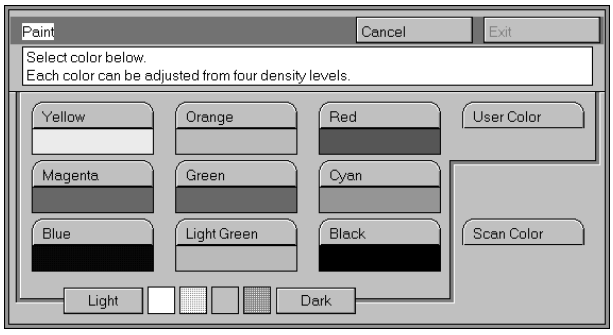

**4** Touch the **[Color Creation]** key, then touch the **[Paint]** key.




**5** Select the color.

❒ You can scan in the color. ☛ See page 34.

❒ The density (except for the scan color) can be lightened or darkened.




**6** Touch the **[Exit]** key.

## Blanking Out Part Of The Image (Save Area)

This function blanks out all aeas except those designated.

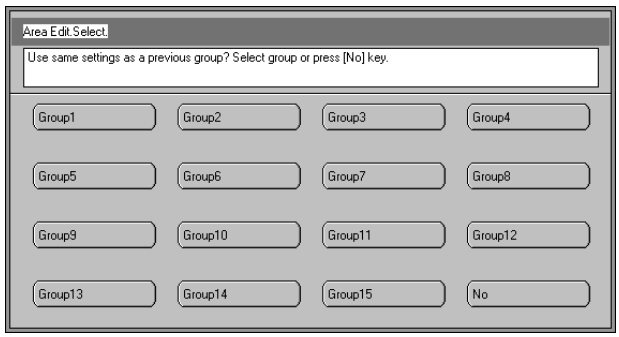
❒ When you select Save Area mode, previously selected modes are canceled.

**1** Designate the areas you wish to modify.

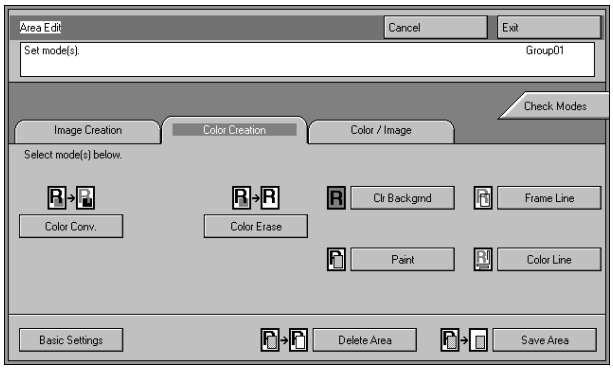
❒ Regarding designating areas, ☛ see page 92.

**2** Touch the **[Area Edit]** key.

**3** When you have already set modes for other groups, the display as shown right is displayed. If you want to use the same mode as previous area, select the group. If you want to set new mode, touch the **[No]** key.



4 Touch the **[Save Area]** key.




5 Touch the **[Exit]** key.

## Erasing A Part Of The Image (Delete Area)

This function blanks out designated areas.

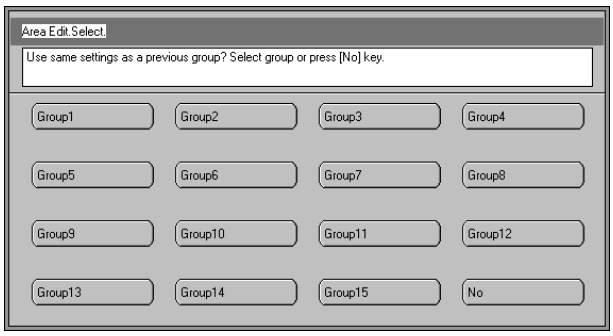
❒ When you select Delete Area mode, previously selected modes are canceled.

1 ADesignate the areas you wish to modify.

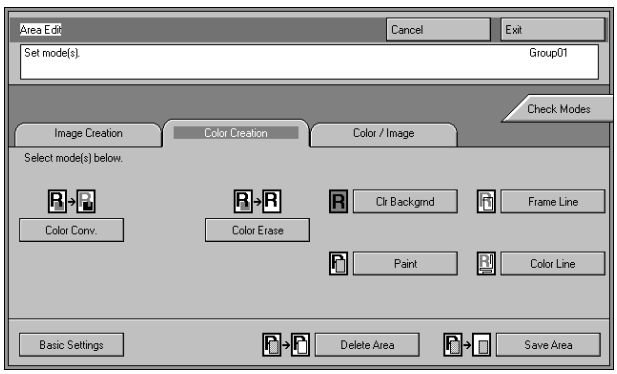
2 Touch the **[Area Edit]** key.

❒ Regarding designating areas, ☛ see page 92.

3 When you have already set modes for other groups, the display as shown right is displayed. If you want to use the same mode as previous area, select the group. If you want to set new mode, touch the **[No]** key.




4 Touch the **[Delete Area]** key.




5 Touch the **[Exit]** key.

# SELECTING MODES FOR OUTSIDE DESIGNATED AREAS

This function allows you to specify how the areas of the image outside the designated areas are treated.

❒ The available modes for area editing depend on the shape of the area. ☛ See page 110.

❒ Regarding functions that cannot be used together in area editing, ☛ see page 110.

❒ More than one mode can be set, however, there are some limitations, ☛ see page 110.

❒ The modes that can be set for outside areas as follows:

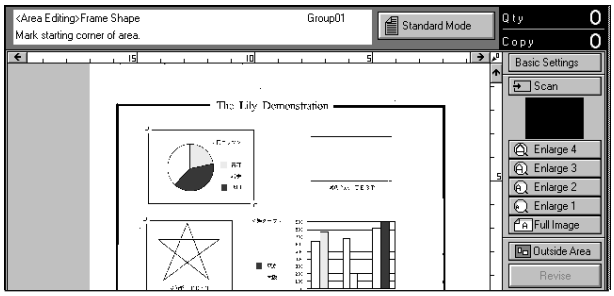
- Color/Image Adjustment: Copy Image Density Adjustment, Color Selection, The Original Image Type (Photo/Letter) Selection, Image Adjustment, Single Color Adjustment, Color Balance Adjustment
- Color Creation: Color Conversion, Color Erase, Color Background, Paint
- Image Creation: Outline, Shadow, Positive/Negative

❒ The way to set modes is basically the same as for the entire image. For details, refer to each page.

- Copy Image Density Adjustment ☛ See page 31.
- The Original Image Type (Photo/Letter) Selection ☛ See page 35.
- Single Color Adjustment ☛ See page 82.
- Color Conversion ☛ See page 55.
- Color Background ☛ See page 57.
- Outline ☛ See page 58.
- Positive/Negative ☛ See page 63.
- Color Selection ☛ See page 32.
- Image Adjustment ☛ See page 83.
- Color Balance adjustment ☛ See page 76.
- Color Erase ☛ See page 56.
- Paint ☛ See page 100.
- Shadow ☛ See page 59.

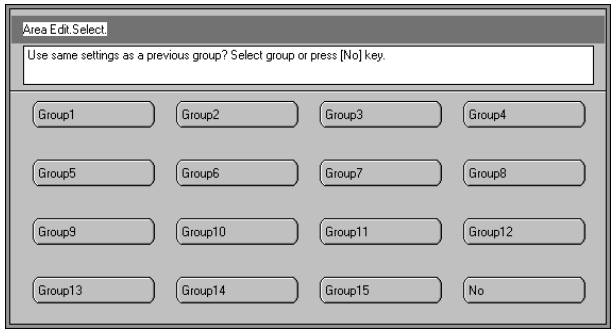
**1** Designate the areas.

❒ Regarding designating areas, ☛ see page 92.




**2** Touch the **[Outside Area]** key.

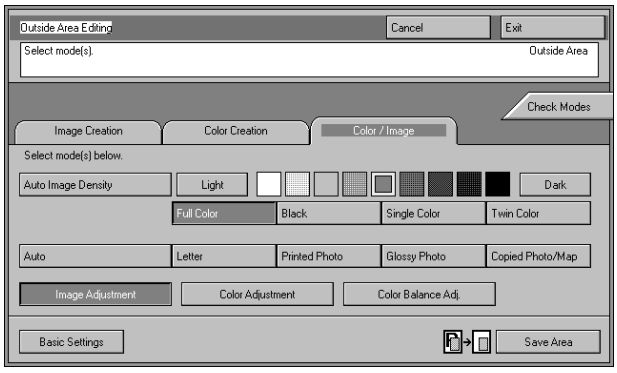
**3** When you have already set modes for other groups, the display as shown right is displayed. If you want to use the same mode as previous area, select the group. If you want to set new mode, touch the **[No]** key.




**4** Touch the **[Color/Image]** key, the **[Color Creation]** key, or the **[Image Creation]** key

**5** Set modes.

❒ If you want to select paper size, touch the **[Basic Settings]** key.




**6** Touch the **[Exit]** key.

**7** Press the **Start** key.

# CHANGING JOB SETTINGS FOR THE ENTIRE IMAGE

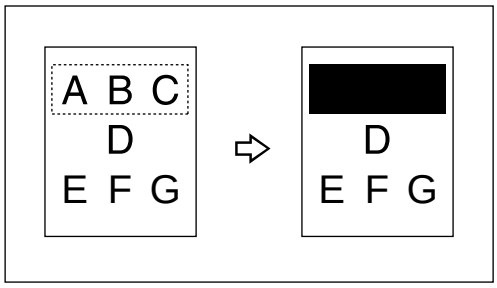
You can change job settings for the entire image during area editing.

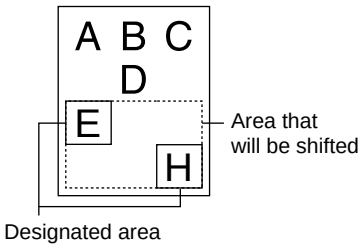
❒ The job settings that can be changed are as follows:

- Paper Selection
- Reduction/Enlargement (Preset R/E, Zoom, Size Magnification, Directional Magnification, Poster Mode)
- Image Shifting
- Margin Adjustment
- Sort (Option)
- Stack (Option)

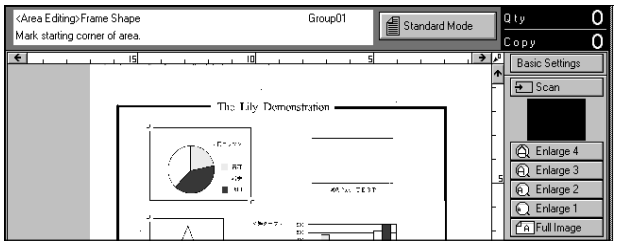
❒ Regarding functions that cannot be used together in area editing, ☛ see page 110.

❒ When you set Image Shifting and Save Area together and designate more than one area in this mode, the minimum size rectangle that includes all the designated areas is shifted as follows:

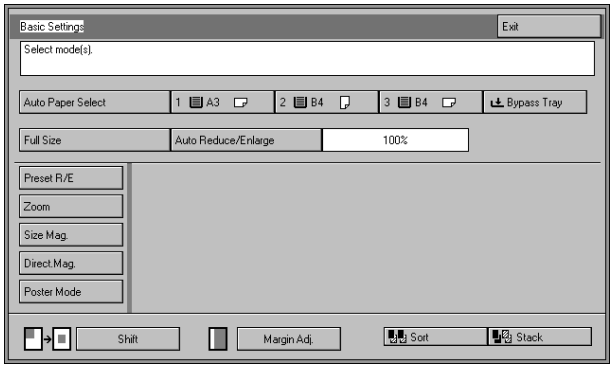



1 Touch the **[Basic Settings]** key.




2 Change the job settings.




3 Touch the **[Exit]** key.

# CHECKING AND CHANGING AREAS

Use this function to check the areas you have selected and the modes you have chosen for each area.

You can:

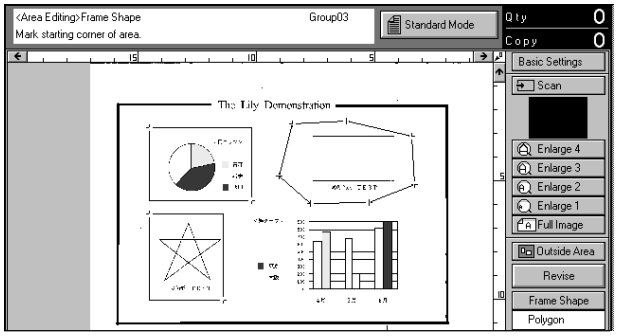
- Change the modes for an area/Group
- Add an area to a Group
- Erase a Group

❒ Note that even if you erase a job setting, a group, or an area, they still consume memory until you exit Area Editing.

## Change Modes

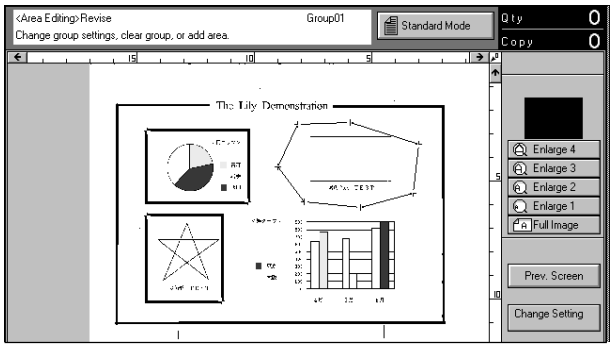
1 Touch the **[Revise]** key.

❒ All designated areas are displayed.



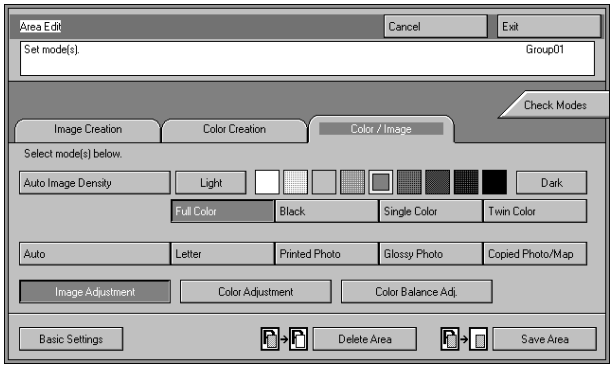

2 Select an area or group.

❒ Areas in this group are highlighted.




3 Touch the **[Change Setting]** key.

4 Change the modes, then touch the **[Exit]** key.

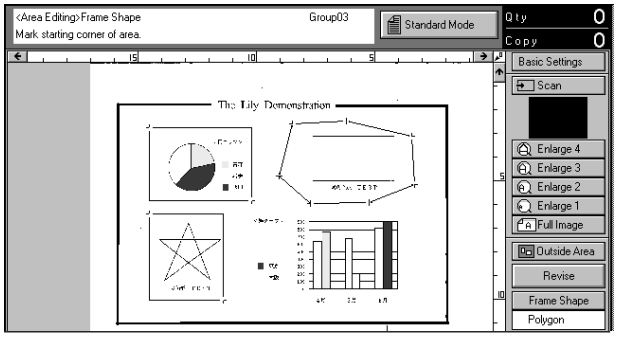



5 Touch the **[Prev. Screen]** key.

## Adding Areas

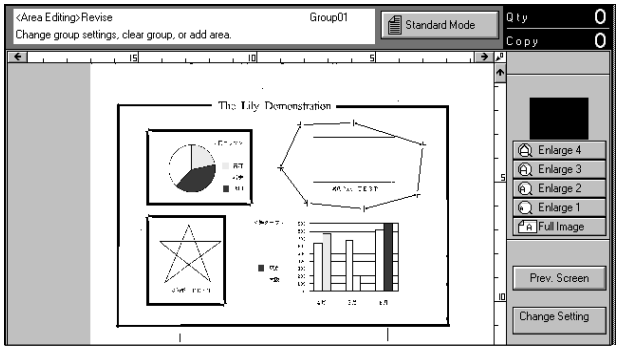
1 Touch the **[Revise]** key.

❒ All designated areas are displayed.

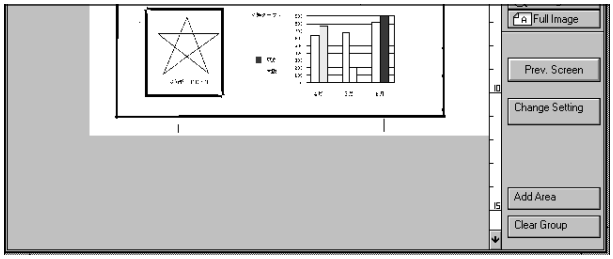



2 Select an area or group.

❒ Areas in this group are highlighted.




3 Touch the **[Add Area]** key.



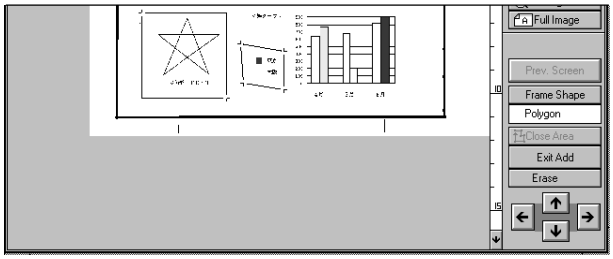

4 Select the frame shape.

5 Designate areas, then touch the **[Close Area]** key.

❒ Regarding designating areas, ☛ see page 92.

6 Touch the **[Exit Add]** key.

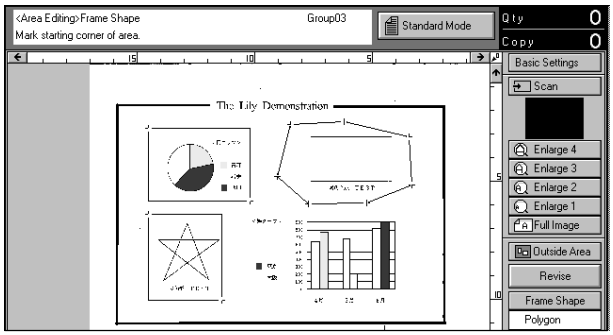
7 Touch the **[Prev. Screen]** key.



## Erasing A Group

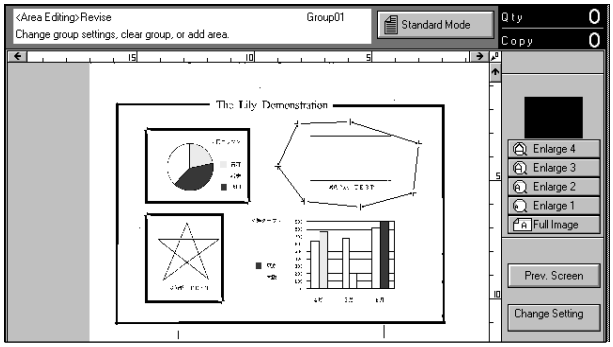
1 Touch the **[Revise]** key.

❒ The all designated areas are displayed.

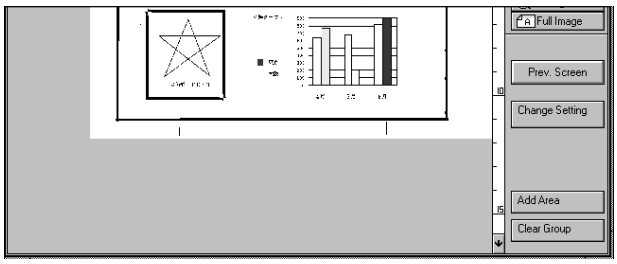



2 Select a group that you want to cancel.

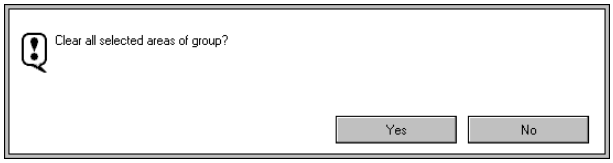
❒ Areas in this group are highlighted.




3 Touch the **[Clear Group]** key.



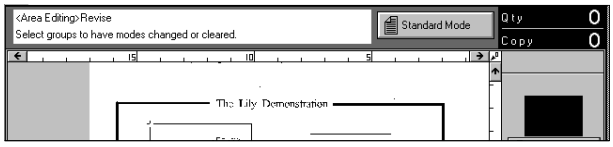

4 Touch the **[Yes]** key.



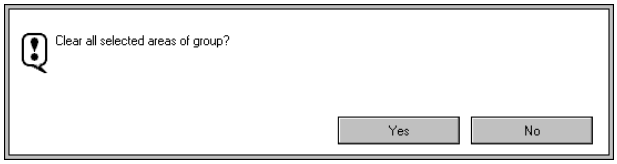

5 Touch the **[Prev. Screen]** key.

# EXITING AREA EDITING

1 Touch the **[Standard Mode]** key.




2 Touch the **[Yes]** key.



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# COMBINATION CHART FOR AREA EDITING

q Functions available for designated areas.

w Functions available for areas outside designated areas.

e Functions that can be selected together in an area.

r Functions available with each shape.

t Functions available for the entire image.

| | | | q | w | e | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Newly selected mode | | | | | | | | | | | | | | | | |
| | | | | | Density | | Color Selection | | | | | Color Creation | | | | | | Image Creation | | | |
| | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| Density | 1 | Auto Image Density | ★ | ★ | | → | → | ☆ | ☆ | ☆ | ☆ | → | → | → | ☆ | – | – | ☆ | ☆ | → | ☆ |
| | 2 | Manual Image Density | ☆ | ☆ | → | | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | – | – | ☆ | ☆ | ☆ | ☆ |
| Color Selection | 3 | Full Color | ☆ | ☆ | ✗ | ☆ | | → | → | → | ☆ | ☆ | ☆ | ☆ | ☆ | – | – | ☆ | ☆ | ☆ | ☆ |
| | 4 | Black | ☆ | ☆ | ☆ | ☆ | → | | → | → | ☆ | → | ☆ | ☆ | ☆ | – | – | ☆ | ☆ | → | ☆ |
| | 5 | Single Color | ☆ | ☆ | ☆ | ☆ | → | → | | → | ☆ | → | ☆ | ☆ | ☆ | – | – | ☆ | ☆ | → | ☆ |
| | 6 | Twin Color | ☆ | ☆ | ☆ | ☆ | → | → | → | | ☆ | → | ✗ | ☆ | ☆ | – | – | ✗ | ☆ | → | ☆ |
| | 7 | Original Image Type Selection | ★ | ☆ | ★ | ☆ | ☆ | ☆ | ☆ | ☆ | | ☆ | ☆ | ☆ | ☆ | – | – | ☆ | ☆ | ☆ | ☆ |
| Color Creation | 8 | Color Conversion | ☆ | ☆ | ✗ | ☆ | ☆ | ✗ | ✗ | ✗ | ☆ | | ☆ | ☆ | → | – | – | ✗ | ☆ | ☆ | ☆ |
| | 9 | Color Erase | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | | ☆ | → | – | – | ✗ | ☆ | ☆ | ☆ |
| | 10 | Color Background | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | | → | – | – | ✗ | ☆ | ☆ | ☆ |
| | 11 | Paint | ☆ | ☆ | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | → | → | → | | – | – | ✗ | ✗ | ✗ | ✗ |
| | 12 | Frame Line | ☆ | ✗ | – | – | – | – | – | – | – | – | – | – | – | | – | – | – | – | – |
| | 13 | Color Line | ☆ | ✗ | – | – | – | – | – | – | – | – | – | – | – | – | | – | – | – | – |
| Image Creation | 14 | Outline | ☆ | ☆ | ★ | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ✗ | ✗ | ✗ | ✗ | – | – | | ☆ | ☆ | ☆ |
| | 15 | Positive/Negative | ☆ | ☆ | ★ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | – | – | ☆ | | ☆ | ☆ |
| | 16 | Shadow | ☆ | ☆ | ★ | ☆ | ☆ | ★ | ★ | ★ | ☆ | ☆ | ☆ | ☆ | ✗ | – | – | ☆ | ☆ | | ☆ |
| | 17 | Mirror | ☆ | ✗ | ★ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | – | – | ☆ | ☆ | ☆ | |
| | 18 | Slanted | ☆ | ✗ | ★ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | – | – | ☆ | ☆ | ☆ | ☆ |
| | 19 | Image Repeat | ✗ | ✗ | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | 20 | Image Overlay | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | – | – | ✗ | ✗ | ✗ | ✗ |
| Image Adjustment | 21 | Sharp/Soft | ☆ | ☆ | ★ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | – | – | ☆ | ☆ | ☆ | ☆ |
| | 22 | Contrast | ☆ | ☆ | ★ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | – | – | ☆ | ☆ | ☆ | ☆ |
| | 23 | Background Density Control | ☆ | ☆ | ★ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | – | – | ☆ | ☆ | ☆ | ☆ |
| | 24 | Pastel | ☆ | ☆ | ★ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | – | – | ☆ | ☆ | ☆ | ☆ |
| | 25 | UCR Adjustment | ☆ | ☆ | ★ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | – | – | ☆ | ☆ | ☆ | ☆ |
| | 26 | Letter/Photo Adjustment | ✗ | ☆ | ★ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | – | – | ☆ | ☆ | ☆ | ☆ |
| | 27 | Single Color Adjustment | ☆ | ☆ | ★ | ☆ | ☆ | ★ | ★ | ★ | ☆ | ✗ | ✗ | ✗ | ✗ | – | – | ✗ | ☆ | ☆ | ☆ |
| | 28 | Color Balance Adjustment | ☆ | ☆ | ★ | ☆ | ☆ | ★ | ★ | ★ | ☆ | ☆ | ☆ | ☆ | ☆ | – | – | ✗ | ☆ | ☆ | ☆ |
| | 29 | Save Area | ☆ | ☆ | ★ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | – | – | ☆ | ☆ | ☆ | ☆ |
| | 30 | Delete Area | ☆ | ✗ | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | | Preset R/E | ✗ | ✗ | | | | | | | | | | | | | | | | | |
| | | Zoom | ✗ | ✗ | | | | | | | | | | | | | | | | | |
| | | Size Magnification | ✗ | ✗ | | | | | | | | | | | | | | | | | |
| | | Directional Size Magnification | ✗ | ✗ | | | | | | | | | | | | | | | | | |
| | | Poster Mode | ✗ | ✗ | | | | | | | | | | | | | | | | | |
| | | Auto Reduce/Enlarge | ✗ | ✗ | | | | | | | | | | | | | | | | | |
| | | Centering/Cornering, Margin Adjustment | ✗ | ✗ | | | | | | | | | | | | | | | | | |
| | | Erase | ✗ | ✗ | | | | | | | | | | | | | | | | | |
| | | Single Copies | ✗ | ✗ | | | | | | | | | | | | | | | | | |
| | | Auto Paper Selection | ✗ | ✗ | | | | | | | | | | | | | | | | | |
| | | Bypass Feed Copying(OHP, Thick paper, Non-standard Size) | ✗ | ✗ | | | | | | | | | | | | | | | | | |
| | | Program | ✗ | ✗ | | | | | | | | | | | | | | | | | |
| | | Interrupt Copying | ✗ | ✗ | | | | | | | | | | | | | | | | | |
| | | Sort/Stack (Option) | ✗ | ✗ | | | | | | | | | | | | | | | | | |

Meaning of the marks in q, w, r, t chart:

v : These modes can be set.

× : These modes cannot be set.

Meaning of the marks in e chart:

☆ : These modes can be used together.

★ : These modes can be used together with some limitations.

→ : The original mode is overridden and only the newly selected mode is active.

✗ : These modes cannot be used together.

| | | | e | | | | | | | | | | | | r | | | | | t |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Newly selected mode | | | | | | | | | | | | | | | | | |
| | | | Image Creation | | Image Adjustment | | | | | | | | | | | | | | | |
| | | | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | Rectangle | Right Angle Polygon | Polygon | Closed Loop | Line | |
| Density | 1 | Auto Image Density | ☆ | – | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | – | ☆ | ☆ | ☆ | ☆ | ✗ | |
| | 2 | Manual Image Density | ☆ | – | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | – | ☆ | ☆ | ☆ | ☆ | ✗ | |
| Color Selection | 3 | Full Color | ☆ | – | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | – | ☆ | ☆ | ☆ | ☆ | ✗ | |
| | 4 | Black | ☆ | – | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ✗ | ☆ | – | ☆ | ☆ | ☆ | ☆ | ✗ | |
| | 5 | Single Color | ☆ | – | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ✗ | ☆ | – | ☆ | ☆ | ☆ | ☆ | ✗ | |
| | 6 | Twin Color | ☆ | – | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ✗ | ☆ | – | ☆ | ☆ | ☆ | ☆ | ✗ | |
| | 7 | Original Image Type Selection | ☆ | – | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | – | ☆ | ☆ | ☆ | ☆ | ✗ | |
| Color Creation | 8 | Color Conversion | ☆ | – | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | – | ☆ | ☆ | ☆ | ✗ | ✗ | |
| | 9 | Color Erase | ☆ | – | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | – | ☆ | ☆ | ☆ | ✗ | ✗ | |
| | 10 | Color Background | ☆ | – | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | – | ☆ | ☆ | ☆ | ☆ | ✗ | |
| | 11 | Paint | ✗ | – | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ☆ | ☆ | – | ☆ | ☆ | ☆ | ☆ | ✗ | |
| | 12 | Frame Line | – | – | ✗ | – | – | – | – | – | – | – | – | – | – | ☆ | ☆ | ☆ | ✗ | ✗ | |
| | 13 | Color Line | – | – | ✗ | – | – | – | – | – | – | – | – | – | – | ✗ | ✗ | ✗ | ✗ | ☆ | |
| Image Creation | 14 | Outline | ☆ | – | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ✗ | ✗ | ☆ | – | ☆ | ☆ | ☆ | ✗ | ✗ | |
| | 15 | Positive/Negative | ☆ | – | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | – | ☆ | ☆ | ☆ | ✗ | ✗ | |
| | 16 | Shadow | ☆ | – | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | – | ☆ | ☆ | ☆ | ✗ | ✗ | |
| | 17 | Mirror | ☆ | – | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | – | ☆ | ☆ | ☆ | ✗ | ✗ | |
| | 18 | Slanted | | – | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | – | ☆ | ✗ | ✗ | ✗ | ✗ | |
| | 19 | Image Repeat | – | | ✗ | – | – | – | – | – | – | – | – | – | – | ☆ | ✗ | ✗ | ✗ | ✗ | |
| | 20 | Image Overlay | ✗ | ✗ | | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | |
| Image Adjustment | 21 | Sharp/Soft | ☆ | – | ✗ | | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | – | ☆ | ☆ | ☆ | ☆ | ✗ | |
| | 22 | Contrast | ☆ | – | ✗ | ☆ | | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | – | ☆ | ☆ | ☆ | ☆ | ✗ | |
| | 23 | Background Density Control | ☆ | – | ✗ | ☆ | ☆ | | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | – | ☆ | ☆ | ☆ | ☆ | ✗ | |
| | 24 | Pastel | ☆ | – | ✗ | ☆ | ☆ | ☆ | | ☆ | ☆ | ☆ | ☆ | ☆ | – | ☆ | ☆ | ☆ | ☆ | ✗ | |
| | 25 | UCR Adjustment | ☆ | – | ✗ | ☆ | ☆ | ☆ | ☆ | | ☆ | ☆ | ☆ | ☆ | – | ☆ | ☆ | ☆ | ☆ | ✗ | |
| | 26 | Letter/Photo Adjustment | ☆ | – | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | | ☆ | ☆ | ☆ | – | ☆ | ☆ | ☆ | ☆ | ✗ | |
| | 27 | Single Color Adjustment | ☆ | – | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | | ☆ | ☆ | – | ☆ | ☆ | ☆ | ☆ | ✗ | |
| | 28 | Color Balance Adjustment | ☆ | – | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | | ☆ | – | ☆ | ☆ | ☆ | ☆ | ✗ | |
| | 29 | Save Area | ☆ | – | ✗ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | | – | ✗ | ✗ | ✗ | ✗ | ✗ | |
| | 30 | Delete Area | – | – | ✗ | – | – | – | – | – | – | – | – | – | | ☆ | ☆ | ☆ | ✗ | ✗ | |
| | | Preset R/E | | | | | | | | | | | | | | | | | | | ☆ |
| | | Zoom | | | | | | | | | | | | | | | | | | | ☆ |
| | | Size Magnification | | | | | | | | | | | | | | | | | | | ☆ |
| | | Directional Size Magnification | | | | | | | | | | | | | | | | | | | ☆ |
| | | Poster Mode | | | | | | | | | | | | | | | | | | | ☆ |
| | | Auto Reduce/Enlarge | | | | | | | | | | | | | | | | | | | ☆ |
| | | Centering/Cornering, Margin Adjustment | | | | | | | | | | | | | | | | | | | ☆ |
| | | Erase | | | | | | | | | | | | | | | | | | | ✗ |
| | | Single Copies | | | | | | | | | | | | | | | | | | | ✗ |
| | | Auto Paper Selection | | | | | | | | | | | | | | | | | | | ☆ |
| | | Bypass Feed Copying(OHP, Thick paper, Non-standard Size) | | | | | | | | | | | | | | | | | | | ☆ |
| | | Program | | | | | | | | | | | | | | | | | | | ☆ |
| | | Interrupt Copying | | | | | | | | | | | | | | | | | | | ✗ |
| | | Sort/Stack (Option) | | | | | | | | | | | | | | | | | | | ☆ |

# WHAT TO DO IF SOMETHING GOES WRONG

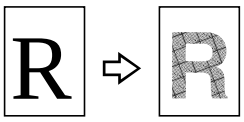
# IF YOUR COPIER DOES NOT OPERATE AS YOU WANT

Check the following:

| Condition | Action |
|---|---|
| Nothing happens when the main switch is turned on. | Check the power cord. Is it properly plugged into the outlet? ➠ Plug it firmly. |
| Paper tray is empty. | Load paper. ☛ See page 117. |
| Toner bottle is almost empty. Or toner bottle is empty. | Add toner. ☛ See page 119. |
| Doors/covers are open. | Close the indicated doors/covers following the instructions on the display. |
| Misfeed occurs. | Remove misfed paper. ☛ See page 121. |
| The display is off. | Your machine is under the stand by condition. ➠ Press the **Clear Modes/Stand by** key. ☛ See page 20. |
| The display instructs you to set the key counter. | Set the key counter. |
| The display instructs you to enter your user code. | The copier is set for User Code mode. Enter your user code. ☛ See page 20. |
| and messages are displayed. | Follow the instructions on the display. |
| Misfeeds occur frequently. | Is the right kind of paper in the paper tray? ➠ Paper size and weight must be within the specifications for this copier. |
| | Is folded, wrinkled, damp, or curled paper in the paper tray? ➠ Always use dry, undamaged paper. |
| | Is the paper properly set in the paper tray? ➠ Always load paper correctly. |
| | Are there any pieces of misfed paper or other foreign objects in the machine? ➠ Make sure that the paper path is completely clear of paper and other material after a misfeed. |

❒ If you cannot correct the problem by taking the above actions, please contact your service representative.

# IF YOU CANNOT MAKE COPIES AS YOU WANT

| Problem | Cause | Action |
|---|---|---|
| Copies appear dirty. | The image density is too dark. | Adjust the image density. ☛ See page 31. |
| | The exposure glass or dual job feeder belt is dirty. | Clean them. ☛ See page 134. |
| The reverse side of an original image is copied. | The image density is too dark. | Adjust the image density. ☛ See page 31. |
| | | If you select the Black Copy mode or Single Color mode, place a black paper in the backside of the original and select Auto Image Density mode. |
| | | If you select the Full Color Copy mode, lighten the background density. ☛ See page 83. |
| A shadow is copied when copying a pasted original. | The image density is too dark. | Adjust the image density. ☛ See page 31. |
| | | Adjust the background density. ☛ See page 83. |
| Copies are too light. | The original has a low contrast image. | Adjust the image density. ☛ See page 31. |
| | The image density is too light. | |
| | Damp or rough grain paper is used. | Use dry paper without rough grain. |
| Copy image is not clear. | The original image type (Photo/ Letter) is not selected properly. | Select the proper original image type. ☛ See page 35. |
| | | Adjust the sharpness of the image. ☛ See page 83. |
| The same copy area is dirty whenever making copies. | The exposure glass or dual job feeder belt is dirty. | Clean them. ☛ See page 134. |
| Copies are blank or parts of the image are not copied. | The original is not set correctly. | Set originals correctly. ☛ See page 23. |
| | An improper paper size is selected. | Select the proper paper size. |
| A moire pattern is produced on copies as shown in the illustration.  | The letter mode is selected. | Select the Auto (Letter/Photo) mode or Photo mode. ☛ See page 35. |
| | The line images of the original might be overlapped each other. | Place the original on the exposure glass at a slight angle. |
| Color tone of copies is different from that of originals. | The color balance is not set properly. | Adjust the Single Color. ☛ See page 82. |
| | | Adjust the Color Balance. ☛ See page 76. |
| | | Perform the Auto Color Calibration. ☛ See page 127. |

| Problem | Cause | Action |
|---|---|---|
| Color tone of copies is completely different from that of originals. | Unsuitable color setting. | Perform Auto Color Calibration. ☛ See page 127. If you cannot correct the problem by performing Auto Color Calibration, contact your service representative. |
| Letter parts and photo parts of an original are not separated correctly. | An original has screened letters or low density letters. | Adjust the Letter/Photo sensitivity to a "letter" level. ☛ See page 83. |
| | An original has a high contrast photo. | Adjust the Letter/Photo sensitivity to a "photo" level. ☛ See page 83. |
| | An original has a photo having sequence thin lines with regular thin spaces. | |
| Color parts of an original are copied in black in Auto Color Select mode. | There are small or thin color parts. | Adjust the color sensitivity to a "color" level. ☛ See page 83. |
| Non-color parts of an original are copied in color in Auto Color Select mode. | The copier may detect some black and white screen images (such as from newspaper) as a full color original. | Select Black mode. ☛ See page 32. |
| | | Adjust the color sensitivity to a "black" level. ☛ See page 83. |
| When editing areas, copying does not start even if you press the **Start** key. | The copier cannot detect the original size. | Select the paper size after pressing the **[Basic Settings]** key. ☛ See page 104. |
| You cannot set 15 colors for Paint, Frame Line, or Color Background mode. | Colors are not selected correctly. | Select colors correctly. ☛ See page 98. |

❒ If you cannot correct the problem by taking the above actions, please contact your service representative.

# LOADING PAPER

***NOTE:*** *Regarding paper sizes that can be set,* ☛ *see page 124.*

***NOTE:*** *If you want to change the paper size of trays 1 and 2,* ☛ *see page 124.* *If you want to change the size of tray 3, contact your service representative.*

## Non-recommended Paper For Paper Trays

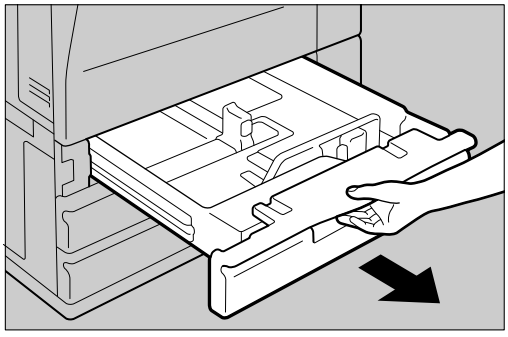
- ❒ Folded, curled, creased, or damaged paper
- ❒ Torn paper
- ❒ Perforated paper
- ❒ Paper with conductive or low electrical resistance coating such as carbon or silver coating
- ❒ Thermal paper, art paper
- ❒ Thin paper that has low stiffness
- ❒ Damp paper
- ❒ Wavy paper
- ❒ Stapled paper
- ❒ Translucent paper

## Notes

- ❒ Load paper with the copy side down in the paper trays. If copies are curled, try turning the copy paper over in the tray. If there is no improvement, change to copy paper with less curl.
- ❒ Correct curls in copy paper before loading.
- ❒ Fan copy paper to get air between the sheets before loading.
- ❒ OHP transparencies should be fanned to get air between the sheets before loading on the bypass feed table.
- ❒ When making two-sided copies, do not load paper in the paper tray to copy on the reverse side. Use the bypass feed table. ☛ See page 37.

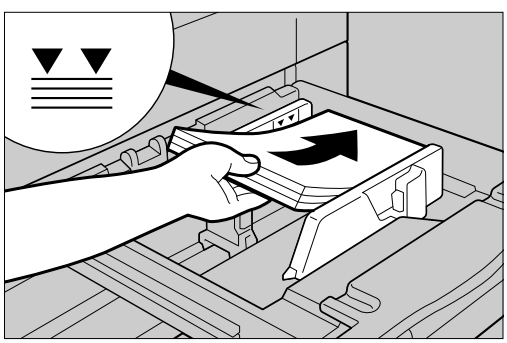
## Loading Paper In The Paper Tray

**1** Pull out the paper tray until it stops.



**2** Load paper with copy side face down.

- ❒ Check the paper packaging to find which side is the copy side.
- ❒ The paper stack must be flush with the right side of the paper tray.
- ❒ Do not stack paper above the limit mark inside the paper tray.



3 Slide the tray gently until it stops.

## Loading Paper On The Bypass Tray

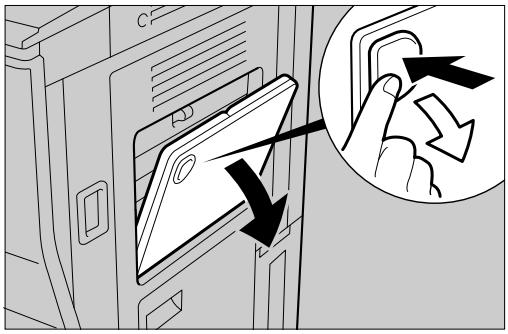
❒ Before loading the copy paper, read the detailed information about bypass feed copying. ☛ See page 37.

- Check if the copy paper is suitable for bypass feed copying.
- Check which keys should be selected to match the copy paper type.

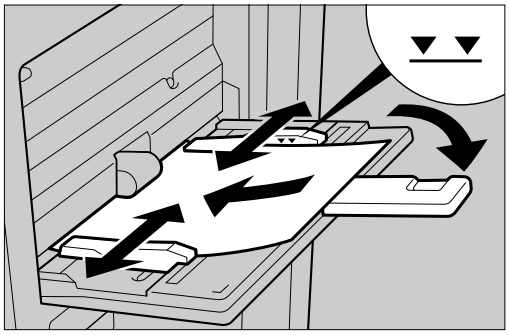
❒ When you set several sheets at a time, especially OHP transparencies, fan them to get air between them before loading.

❒ When you copy onto OHP transparencies, remove copied sheets one by one.

1 Push the button on the bypass tray to open it.



2 Adjust the guides to the paper size.



❒ Make sure that the guides matches to the paper size.

❒ With large copy paper (more than A4 ▭, 11" × 8 1/2" ▭), swing out the extender.

3 With the side you wish to copy onto face up, insert the paper into the feeder until the machine beeps.

❒ Check the paper packaging to find which side is the copy side.

❒ Do not stack paper above the limit mark.

❒ If copying on adhesive labels, insert one sheet at a time.

4 Make copies.

5 After finishing copying, return the bypass tray to its original position.

# ADDING TONER

There are four kinds of toner (Cyan, Magenta, Yellow, and Black). When the "Add Toner" message appears on the display, it is time to add toner.

> ⚠ ***WARNING: Do not incinerate used toner or toner containers. Toner dust might ignite when exposed to an open flame. Dispose of the used toner containers according to local regulations for plastics.***

***NOTE**: Do not use used toner. This will damage the copier.*

***NOTE**: Make sure to add the correct color toner.*

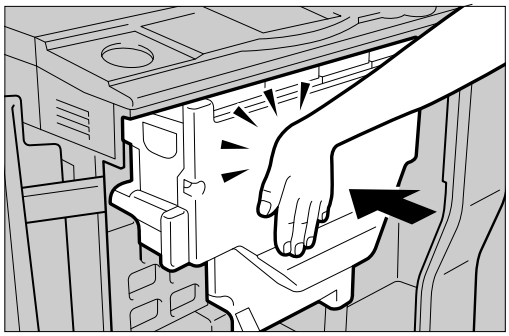
***NOTE**: While the toner is falling into the unit, do not tap the toner bottle. If you do, toner may scatter.*

***NOTE**: Add only one bottle of toner at a time.*

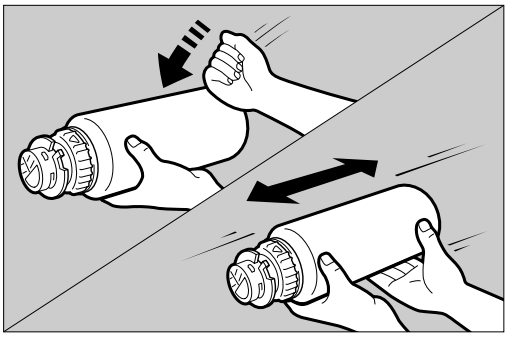
***NOTE:** When adding toner, do not turn off the main switch. If you do, your copy settings are cleared.*

***NOTE:** Before setting the new toner bottle, shake it right and left, and up and down at least 10 times each way.*

1. Open the front door.
2. Push the toner unit. The unit will unlock and come out a little. Pull the unit out until it stops.



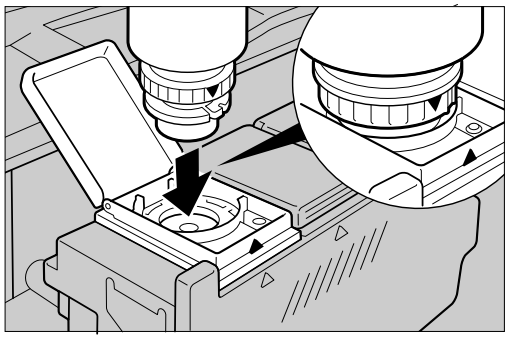
3. Have ready a new toner bottle of the color indicated on the touch panel display.
4. Tap the new toner bottle to loosen the toner.
5. Shake the new toner bottle right and left, and up and down at least 10 times each way.



6 Check the color of the toner unit and open its cover.

❒ Do not loosen or tighten the cap of the toner bottle before setting the toner bottle in position.

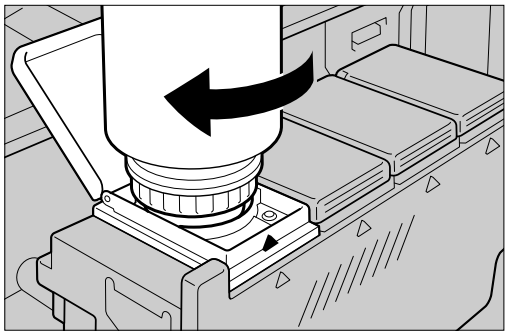
7 Align the arrows of the unit and the bottle. Press the toner bottle down until it sets in position.



8 Turn the toner bottle clockwise until it stops (about 70°). The toner will fall into the unit.

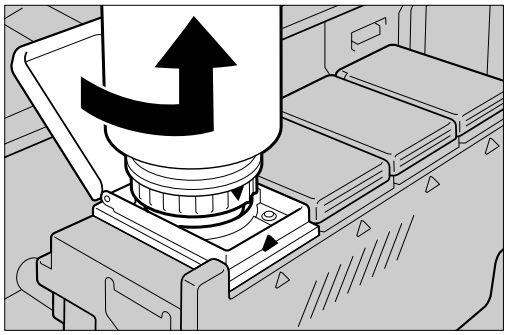
❒ Do not tap the toner bottle. If you do, toner may scatter.

❒ It takes about 1 minute to finish.



9 Check that the bottle is empty, then turn the bottle counterclockwise and remove it.

❒ If toner still remains in the bottle, remove the bottle once. Shake it again and reset the toner bottle again in position.



10 Slowly push the toner unit back in until it locks.

11 Close the front door.

# CLEARING MISFEEDS

> ⚠ ***Caution:*** ***When removing misfed paper, do not touch the fusing section because it could be very hot.***

***NOTE****: Since some parts of the copier are supplied with high electrical voltage, touch only the parts specified in the instructions on the stickers inside the machine's cover.*

***NOTE****: Do not leave any torn scraps of paper in the machine.*

***NOTE****: Do not push down on the fusing unit or it will break.*

***NOTE****: When sliding the fusing unit back in, make sure that it clicks into position. If it does not, an error will be indicated.*

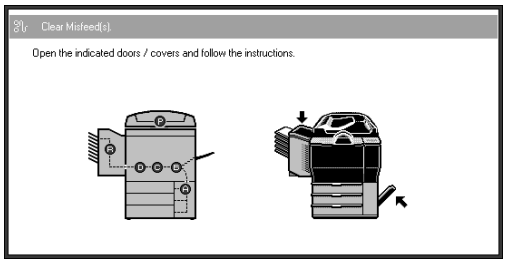
***NOTE:*** *When clearing misfeeds, make sure that all units and levers are returned to their original positions and all covers are closed.*

***NOTE:*** *Do not touch originals in the dual job feeder when a paper misfeed occurs in the copier. If you do, the copier cannot determine which originals have been copied and which haven't.*



## Check The Misfeed Location Display

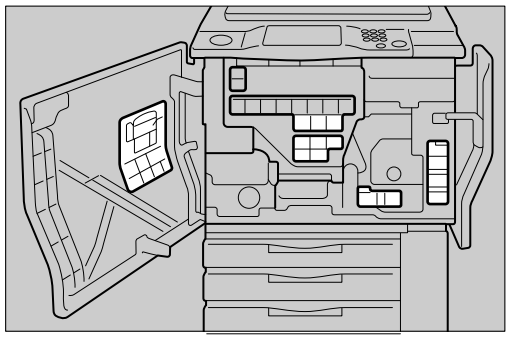
The display shows the location of misfed paper.




## Clearing Paper Misfeeds

### When A, B, C, or D is lit:

1. Open the front cover of the copier.
2. Find a sticker (wit at the top) explaining how to remove misfed paper, inside the front door as shown in the illustration.



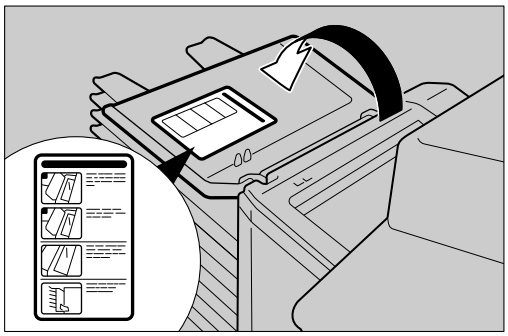
3. Remove misfed paper following the instructions on the sticker.

### When R is lit:

❒ This indicator is lit only when your copier is equipped with the optional sorter.

1. Open the top cover of the sorter.

2. Find a sticker (with ⚠ at the top), explaining how to remove the misfed paper, on the sorter as shown in the illustration.



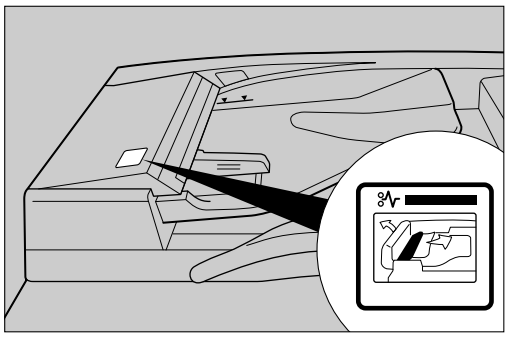
3. Remove the misfed paper following the instructions on the sticker.

## Clearing Original Misfeeds

### When P is lit:

❒ This indicator is lit only when your copier is equipped with the optional dual job feeder.

1. Find a sticker (with ⚠ at the top), explaining how to remove the misfed paper, on the dual job feeder as shown in the illustration.



2. Remove the misfed paper following the instructions on the sticker.

# CHANGING THE COPIER'S SETTINGS

# CHANGING PAPER SIZE IN TRAYS 1 AND 2

❒ If you would like to change the paper size in tray 3, contact your service representative.

❒ You can select paper of the following sizes:

Metric version: ▭: A3, A4, 8 1/2" × 13"(F4), 8 1/4" × 13"
▯: A4, A5,

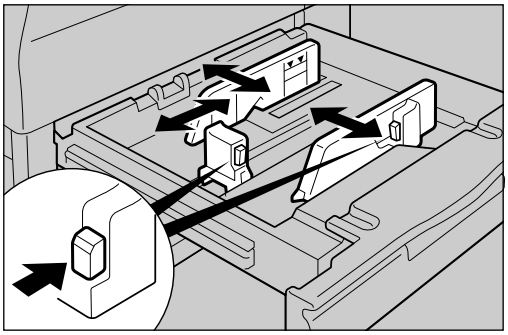
Inch version: ▭: 11" × 17", 10" × 14", 8 1/2" × 11", 8 1/2" × 14", 8" × 10 1/2", 8" × 10", 8" × 13", 11" × 15"
▯: 8 1/2" × 11", 5 1/2" × 8 1/2",

1 Pull out the paper tray until it stops.

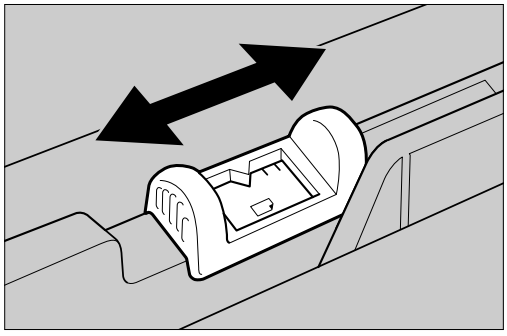
2 Remove paper from the tray.

3 While pressing the green release levers, slide the side and back guides to the paper size you want to use.

❒ Make sure that the release lever is locked in the correct position.



4 Select the paper size by adjusting the paper size selector on the rear side of the tray.

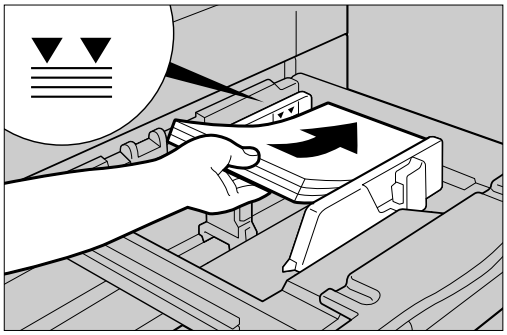


5 Load paper.

❒ Check the paper packaging to find which side is the copy side.

❒ The paper stack must be flush with the right side of the tray.

❒ Do not stack paper above the limit mark inside the paper tray.

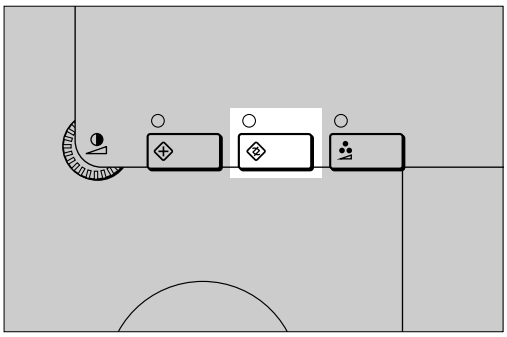


6 Re-insert the tray gently until it stops.

# USER TOOLS

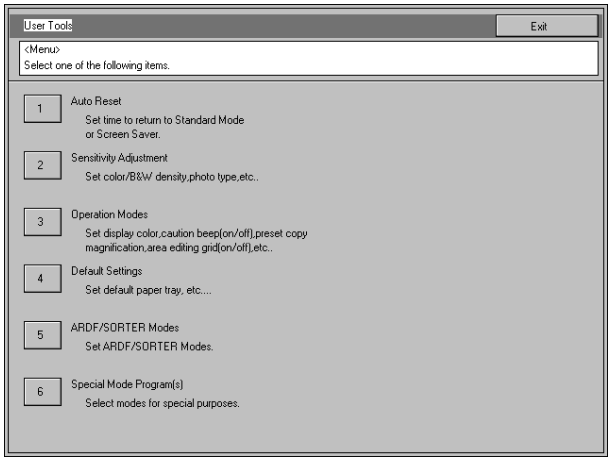
## How To Access User Tools

1 Press the **User Tools** key.



2 Select the menu number you want to use by touching the touch panel display.

- ❒ To return to the menu display after changing the desired default settings, touch the **[Menu]** key.
- ❒ To exit the menu display, touch the **[Exit]** key or press the **User Tools** key.



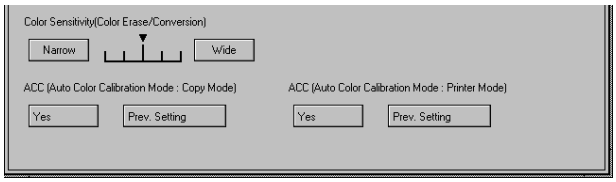
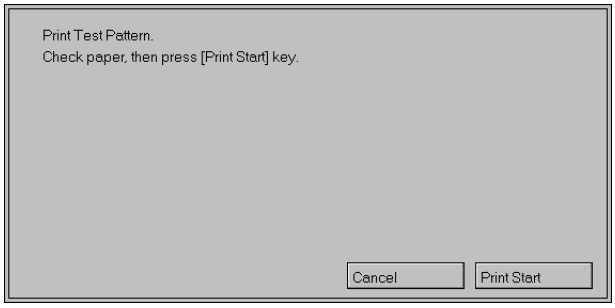
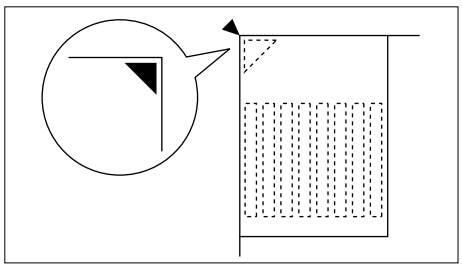
# User Tools Menu

## 1. Auto Reset

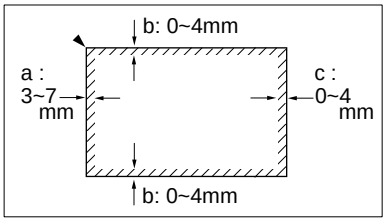
| | |
|---|---|
| **Auto Reset Time** | The copier returns automatically to its initial condition a certain time the last job finished. You can change this time to anywhere between 10 seconds and 15 minutes (900 seconds). Alternatively you can switch auto-reset off completely.<br>❒ default: 1 minute (60 seconds) |
| **Screen Saver Time** | The touch panel display turns off automatically a certain time after the last job finished. The time can be set from 10 seconds to 15 minutes (900 seconds), or off.<br>❒ default: No |
| **SADF Auto Reset Time** | When you set one original at a time in the dual job feeder, the Auto Feed indicator lights for a selected time after an original is fed to show that the dual job feeder is ready for another original. You can adjust this time from 1 second to 99 seconds, or off.<br>❒ default: 5 seconds |
| ❒ For anexplanation of entering numbers, ☛ see page 21. | |

## 2. Sensitivity Adjustment

| | |
|---|---|
| **Color Mode Selection** | When copying in full color, 4 colors (Yellow, Magenta, Cyan, and Black) are used by default. You can change this so that only 3 colors (Yellow, Magenta, and Cyan) are used.<br>❒ default: 4 color |
| **Auto Color Select** | You can select color images or black & white images that are priorily detected in Auto Color Select mode.<br>❒ default: Color Priority<br>❒ If you want to make copies with black & white images clearer in Auto Color Select mode, select B/W Priority. |
| **Density Setting (Full Color)** | The Auto Image Density levels in Full Color mode can be made lighter or darker (5 levels).<br>❒ default: level 3 |
| **Density Setting (Black Copy mode, Single Color mode, Twin Color mode)** | The Auto Image Density levels in Black Copy mode, Single Color mode, or Twin Color mode can be made lighter or darker (5 levels).<br>❒ default: level 3 |

| | |
|---|---|
| **Auto Letter/Photo Mode** | When in Auto (Letter/ Photo) mode, photo parts are automatically copied in Photo mode. You can select the photo type (Printed Photo, Glossy Photo, or Copied Photo).<br>❒ default: Printed Photo |
| **Color Sensitivity (Color Erase/Conversion)** | When in Color Erase or Color Conversion mode, the function can be made more or less sensitive to the color to be erased or converted. It can be adjusted within 5 levels ("Narrow" to "Wide").<br>For example, if red is selected as the color to be erased or converted, "Narrow" will result in only red being erased or converted, and "Wide" will result in other colors close to red being erased or converted.<br>❒ default: level 3 |
| **ACC (Auto Color Calibration Mode: Copy mode)**<br><br>**ACC (Auto Color Calibration Mode: Printer Mode)** | When the tone of a specific color is strong or the color tone of copies is different from that of originals, perform this mode.<br>1. Touch the **[Yes]** key.<br>❒ When you want to return to the previous setting, touch the **[Prev. Setting]** key.<br>  <br>2. Touch the **[Print Start]** key.<br>  <br>3. Set the test pattern on the exposure glass, then touch the **[Scan Start]** key.<br>❒ If your copier is equipped with the optional dual job feeder, place several sheets of white paper of the same size behind the test pattern on the exposure glass.<br>  |

## 3. Operation Modes

| | |
|---|---|
| **3 Side Full image** | When this mode is off, narrow margins on all 4 sides of the original are not copied.<br>  <br><br>When you turn it on, margins b and c are copied.<br>❒ default: No<br>❒ You cannot cancel the leading edge margin. |
| **Display Color Setting** | You can change the color of the display editor.<br>1. Touch the **[Change Color]** key.<br>2. Select the color.<br>❒ The density can one of two levels.<br>3. Touch the **[Exit]** key. |
| **Panel Beeper** | The beeper (key tone) can be turned on or off.<br>❒ default: on |
| **Editor Grid Display (Only for Edit type)** | You can turn the grid snap on or off in the display editor. The grids may help you to mark a right angle shape.<br>❒ default: No |
| **User R/E** | In the Preset R/E (Reduction/Enlargement) mode, reproduction ratios on 12 keys are already fixed but you can store reproduction ratios into additional two keys.<br>1. Touch the **[User R/E 1]** or **[User R/E 2]** key.<br>2. Enter the desired reproduction ratio (25 ~ 400 %) with **Number** keys.<br>3. Touch the **[#]** key.<br>4. Touch the **[Exit]** key. |
| **Printer using bypass tray, in duplex mode** | When you use the copier as a printer (option), and you want to copy onto the reverse side of paper using the bypass tray, set this mode to **[Yes]**.<br>❒ default: No |

## 4. Default Settings

| | |
|---|---|
| **Auto Paper Select** | As a default setting, the Auto Paper Select is selected just after the main switch is on or when modes are cleared. You can cancel this setting.<br>❒ default: yes |
| **Default Paper Tray** | When you set “off” for Auto Paper Select, you can choose the tray (tray 1, 2, or 3) that is selected just after the main switch is turned on or when the modes are cleared.<br>❒ default: tray 1 |
| **Color Mode Selection** | You can select the color mode (Auto Color Select, Full Color, or Black Copy) that is selected just after the main switch is turned on or when modes are cleared.<br>❒ default: Auto Color Select mode<br>❒ If your copier is Edit type, you may specify the start up color settings for each mode (Standard, Inside Area, Outside Area). Note that Auto Color Select cannot be specified for Inside/Outside Area Modes. |
| **Set Density (Full Color)** | As a default setting, Manual Image Density mode is selected automatically in Full Color mode just after the main switch is on or when modes are cleared.You can cancel this setting so that Auto Image Density mode is selected.<br>❒ default: Manual Image Density<br>❒ If your copier is equipped with the optional display editor, first select **[Standard Mode]**. |
| **Set Density (Black Copy, Single Color, Twin Color)** | As a default setting, Auto Image Density mode is selected automatically in Black Copy mode, Single Color mode, Twin Color mode just after the main switch is on or when modes are cleared. You can cancel this setting so that Manual Image Density mode is selected.<br>❒ default: Auto Image Density<br>❒ If your copier is equipped with the optional display editor, first select **[Standard Mode**]. |
| **Set Density (Area editing)** | As a default setting, Auto Image Density mode is selected automatically in Area Editing just after the main switch is on or when modes are cleared. You can cancel this setting so that Manual Image Density mode is selected.<br>❒ default: Auto Image Density<br>❒ If your copier is equipped with the optional display editor, you can set modes for each conditions (Inside Area or Outside Area). First select the condition that you want to change mode. |
| **Original Type Default Setting** | You can select the original image type (Auto letter/photo mode, Printed photo mode, Glossy photo mode, Letter mode, Copied photo mode, or Map mode) that is selected automatically just after the main switch is on or when modes are cleared.<br>❒ default: Auto letter/photo mode<br>❒ If your copier is Edit type, you may specify the start up color settings for each mode (Standard, Inside Area, Outside Area). Note that Auto Color Select cannot be specified for Inside/Outside Area Modes. |

## 5. ARDF/SORTER Modes

| | |
|---|---|
| **Thin Paper Mode** | Use when changing the type of original to be fed. Select this function when you use thin originals (lighter than 53 g/m$^2$, 14 lb) for the optional dual job feeder not to damage thin paper.<br>❒ default: No |
| **Mixed Sizes** | By default, you cannot set originals of different sizes at one time in the optional dual job feeder. You can cancel this setting.<br>❒ default: No<br>❒ If you select **[Yes]**, the copying speed will be reduced.<br>❒ When setting different length originals, all originals must be flush with the back fence of the dual job feeder.<br>❒ Smaller size originals might skewed a little. |
| **No Sort/Stack** | The machine can be set to disable sorting or stacking when in Full Color mode to maximize quality of full color copy.<br>❒ default: off |
| **Auto Sorting Mode** | You can set the copier selects Sort mode automatically when you insert two or more originals in the optional dual job feeder and make two or more copies from each original.<br>❒ default: No |
| **ADF APS Setting** | By default, the Auto Paper Select is selected when you set originals in the optional dual job feeder. You can cancel this setting.<br>❒ default: Yes |

## 6. Special Mode Program(s)

Use to recall the special mode program that is set by your service representative.

❒ When you recall special mode program, the mode number is displayed in the message line.
- Mode 1, Mode 2: the settings for the copier function.
- Mode 3: the settings for the printer function.

❒ The special mode programs are set by the service representative. If you want to use this function, contact your service representative.

# ADMINISTRATOR TOOLS

This function is for an administrator of this copier.

- When you want to use Administrator Tools, you should enter the key operator access code. Please ask your sales or service representative for this access code.
- For about the Administrator Tool menu, see the next page.

# Administrator Tool Menu

### 1. Set Operation Modes

| | |
|---|---|
| **Maximum Copy Number** | The maximum copy quantity can be set from 1 to 99.<br>❒ default: 99<br>❒ For an explanation of entering numbers, ☛ see page 21. |
| **Auto Tray Switching** | If you load paper of identical size and direction in two or more trays (except for the bypass feed table), the machine shifts to another tray when the tray in use runs out of paper.<br>❒ default: No |

Administrator tools 2, 3, 4, 5, and 6 are for the User Code mode. When you want to use the User Code mode, contact your service representative.

### 2. Restrict Color Modes

You can assign user codes to each color mode. Operators must input their user codes before using each color mode (Full Color, Black Copy, Single Color, Twin Color). The copier keeps count of the number of copies made under each user code.

### 3. Set User Code(s)

| | |
|---|---|
| **Register** | Use to register your user code (6 digits).<br>❒ Up to 20 user codes can be registered. |
| **Change** | Use to change you present user code to a new one.<br>❒ The number of copies made under the old code is added to that made under the new user code. |
| **Delete** | Use to delete your user code.<br>❒ If you want to delete all user codes, touch the **[Delete All Codes]** key after touching the **[Delete]** key.<br>❒ The number of copies made under the deleted code is also deleted. |
| ❒ For an explanation of entering numbers, ☛ see page 21. | |

### 4. Check/Reset Specified Copy Counter

You can check the number of copies made using each user code. Also, you can clear each code's counter.

### 5. Print All Copy Counters

You can print data for all user codes.

❒ It is printed on A4▯, 8 1/2" × 11"▯ copy paper. If A4▯, 8 1/2" × 11"▯ paper is not set, it is printed on A3▭, 11" × 17"▭ copy paper.

### 6. Reset All Copy Counters

You can reset data for all user codes.

# MAINTAINING YOUR COPIER
# WHERE TO PUT YOUR COPIER
# DO'S AND DON'TS
# REMARKS
# USE AND STORAGE OF SUPPLIES

# MAINTAINING YOUR COPIER

To maintain high copy quality, clean the following parts and units regularly.

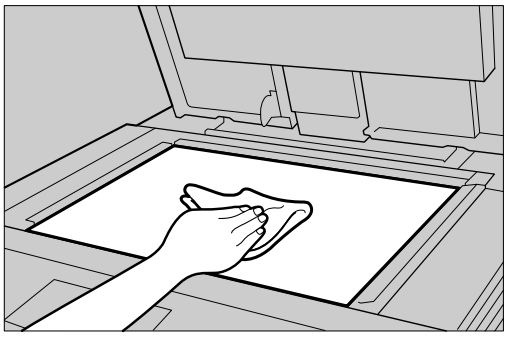
## Copier

### Touch Panel Display

Clean the touch panel display with a dry soft cloth.

### Exposure glass

Clean the exposure glass with a damp cloth and wipe it with a dry cloth.



### Display

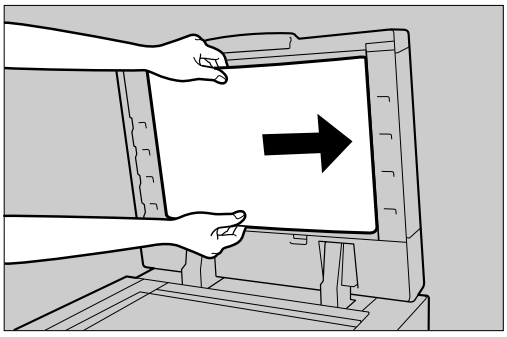
Clean the display with a dry soft cloth.

## Dual Job Feeder (Option)

### Belt

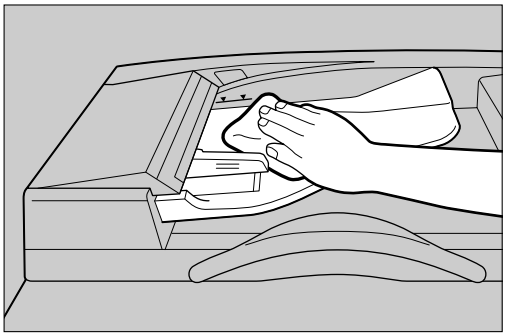
Clean the belt with a damp cloth and wipe it with a dry cloth.

❒ Move the belt with both hands and clean it.



### Feed-in Unit

Clean the original table and original guide with a damp cloth and wipe it with a dry cloth.



# WHERE TO PUT YOUR COPIER

## Copier Environment

Your copier's location should be carefully chosen because environmental conditions greatly affect its performance.

### Optimum environmental conditions

- ❒ Temperature: 10 – 30°C, 50 – 86°F
- ❒ Humidity: 15 – 90 %
- ❒ A strong and level base
- ❒ The copier must be level within 5 mm, 0.2" both front to rear and left to right.
- ❒ To avoid possible built-up ozone, make sure to locate this copier in a large well ventilated room that has an air turnover of more than 30 $m^3$/hr/person.

### Environments to avoid

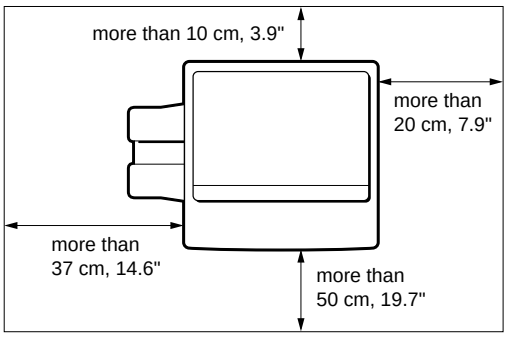
- ❒ Locations exposed to direct sunlight or strong light (more than 2,000 lux).
- ❒ Locations directly exposed to cool air from an air conditioner or heated air from a heater. (Sudden temperature changes might cause condensation within the copier.)
- ❒ Places where the copier might be subjected to frequent strong vibration.
- ❒ Dusty areas.
- ❒ Areas with corrosive gases.
- ❒ Places higher than 2,000 m, 6,500 ft above sea level.

## Power Connection

- ❒ Connect the copier to a power source meeting the specifications given on the inside front cover of this manual.
- ❒ Avoid multiwiring.
- ❒ Make sure that the wall outlet is near the copier and easily accessible.
- ❒ Make sure the plug is firmly inserted in the outlet.
- ❒ Voltage must not fluctuate, more than 10 %.
- ❒ Do not set anything on the power cord.
- ❒ Always turn the copier off when you have finished copying for the day, but leave it plugged in.

## Access To Copier

Place the copier near the power source, providing clearance as shown.




# DO'S AND DON'TS

## Copier

### When adding toner

- ❒ Do not incinerate toner or toner containers. Toner dust might ignite when exposed to open flame.
- ❒ Dispose of the used toner bottle according to local regulations.
- ❒ When adding toner, do not turn off the main switch. If you do, your copy settings are cleared.
- ❒ Make sure to add the same color toner.
- ❒ Add only one bottle of toner at a time.
- ❒ Before setting the new toner bottle, shake it right and left, and up and down at least 10 times each.

### When removing misfed paper

- ❒ Since some parts of the copier are supplied with high electrical voltage, touch only the parts specified in the instructions on the stickers inside the machine's cover.
- ❒ When removing misfed paper from section D, use caution. The fusing unit may be very hot. ☛ See page 3 for the position of the fusing unit.
- ❒ When removing misfed paper from section C and R, use caution. The near parts may be very hot.
- ❒ Do not leave any torn scraps of paper in the machine.
- ❒ When clearing misfeeds, make sure that all units and levers are returned to their original positions and all covers are closed.
- ❒ Do not touch originals in the dual job feeder when a paper misfeed occurs in the copier. If you do, the copier cannot determine which originals have been copied and which haven't.

## Dual Job Feeder (Option)

- ❒ While originals are fed from the original table to the exposure glass, do not pull out the originals.
- ❒ Do not lift the dual job feeder until the last original has been completely fed out.
- ❒ Do not press down or hold originals after inserting them.
- ❒ Do not press any parts of the dual job feeder strongly.

# REMARKS

## Copier

❒ To maintain the copy image quality, the copier stops copying for 10 ~ 80 seconds and the “Wait” message will appear on the touch panel display in the following time frames:

- About 10 seconds after about 40 copies
- About 20 seconds after about 50 copies
- About 80 seconds after about 150 copies

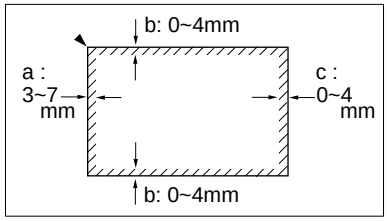
The above 3 time frames are carried out independently. Sometimes one will follow the other.

❒ When copying from a colored original, the copier will scan the original 4 times for one copy. Be careful not to move the original during the scanning process. If the original is moved slightly, the colors (Cyan, Magenta, Yellow, and Black) might not combine properly.

❒ To avoid problems caused by curled copies, try turning over the paper stack in the paper tray. If there is no improvement, change to copy paper with less curl.

❒ Load paper with the copy side down in the paper trays. If copies are curled, try turning the copy paper over in the tray. If there is no improvement, change to copy paper with less curl.

❒ As a default setting, narrow margins on all four sides will not be copied as shown in the illustration.




# USE AND STORAGE OF SUPPLIES

## Copy Paper

❒ Copy paper of the types or in the conditions listed below are not recommended for this copier.

- Folded, curled, creased, or damaged paper
- Torn paper
- Perforated paper
- Paper with conductive or low electrical resistance coating such as carbon or silver coating
- Thermal paper, art paper
- Thin paper that has low stiffness
- Damp paper
- Wavy paper
- Stapled paper
- Translucent paper

❒ Fan copy paper and OHP transparencies to get air between the sheets before loading.

❒ Do not touch copy paper if your fingers are wet or oily; finger prints may appear on the copy.

❒ Load paper with the copy side down in the paper trays. If copies are curled, try turning the copy paper over in the tray. If there is no improvement, change to copy paper with less curl.

❒ When copying on rough surface paper, the copy image may be light.

❒ When making two-sided copies, do not load paper in the paper tray to copy the reverse side. Use the bypass feed table.
☛ See page 37.

## Paper Storage

Paper should always be stored properly. Improperly stored paper might result in poor image reproduction, creased copies, and paper misfeeds. Generally, avoid curling and absorption of moisture.

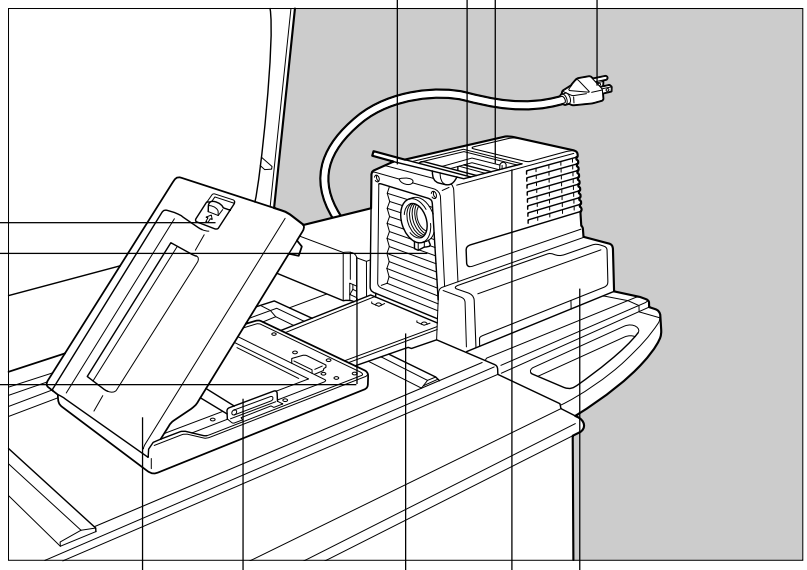
- ❒ Avoid storing paper in humid areas. Under high temperature and high humidity, or low temperature and low humidity conditions, store paper in a vinyl bag.
- ❒ Do not store paper where it will be exposed to heat.
- ❒ Store on a flat surface.
- ❒ Use older stock first.
- ❒ Do not lay heavy objects on paper.
- ❒ Keep open reams of paper in the package, and store as you would unopened paper.

## Toner Storage

- ❒ Store in a cool, dark place.
- ❒ Never store toner where it will be exposed to heat.
- ❒ Do not lay heavy objects on toner bottle.

# PROJECTOR UNIT OPERATION

# GUIDE TO COMPONENTS



**Power cord**
Plug the power cord into a wall outlet.

**Holder slot**
Set the holder here.

**Filter slot**
Insert the P or N filter here.

**Film cover**
To protect the slots from dust, close it when you are not using the projector.

**Mirror unit release lever**
Slide this to the left when opening the mirror unit.

**Focusing lever**
Adjust the focus with this lever when you make copies from a glass mount film.

**Power switch**
Switches the power on or off.

**Mirror unit**
Reflects the light from the projector to the copier.

**Fresnel lens**
Pull this up when setting film on the exposure glass.

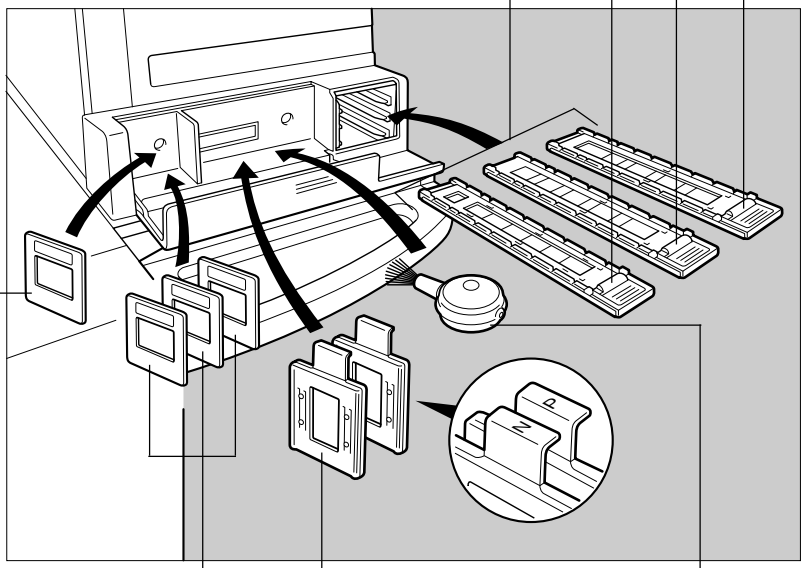
**Lens cover**
To protect the lens from dust, close it when you are not using the projector.

**Accessory box**
Accessories should be stored here.

**Holder lever**
Use to set the holder into the holder slot.

**Film holders**
Set 35 mm film in one of these holders.
- Slide holder: Set mounted positive films in this holder. (This holder is covered with glass.)
- Film strip holder: Set negative or positive strip film and base film here.
- Glass mount film holder: Set the positive glass mount films in this holder. (This holder is covered with glass.)

**Lock levers**
Use to fix the film after setting it in the holder.



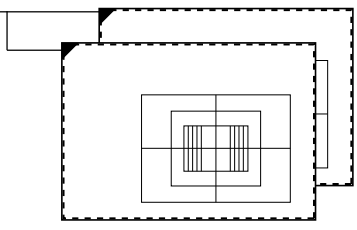
**Slide mount**
Use to make a base film slide.

**Base film slides**
Use them when performing shading with Negative film.

**Blower brush**
Use to clean the lens or glass.

**Filters (P = Positive, N = Negative)**
One of them should be set in the filter slot.

**Film position sheet**
Use a duplicate of this sheet to place the film in the correct position on the exposure glass.
Make a copy from the original sheet, cut around the surrounding margin on the dotted lines, and cut away the center part corresponding to the size of the film to be copied.
Keep the original film position sheet.



# BEFORE OPERATING THE PROJECTOR

## About Film

***NOTE**: Do not use the same film for more than 30 minutes.*

***NOTE**: Do not store film in rooms where the temperature is more than 30°C, 86°F.*

❒ For valuable images, we recommend copying from duplicates.

❒ When using a film strip, be sure to take it out from the film protection sheet.

You can use the following kinds of films:

❒ 35 mm Positive slides (Mount film/Glass mount film)

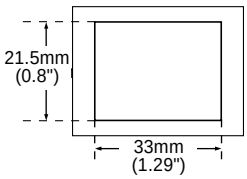
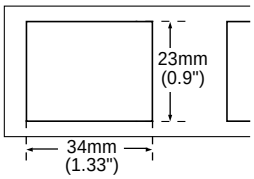
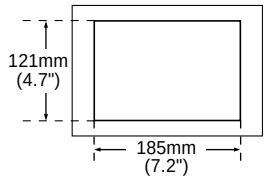
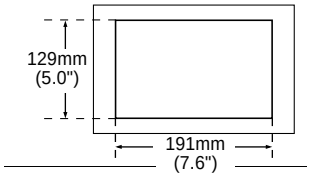
❒ 35 mm Negative or Positive strip films

❒ Positive or Negative films of wider size (these films should be placed on the exposure glass):

- 60 × 45 mm
- 60 × 60 mm
- 60 × 70 mm
- 60 × 80 mm
- 60 × 90 mm
- 6 × 6 cm
- 4" × 5"
- Maximum size (142 × 210 mm, 5.5" × 8.2")

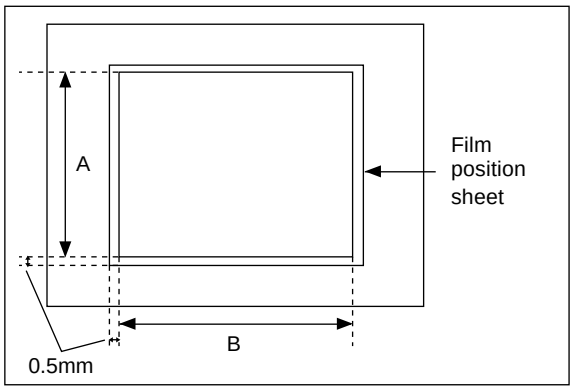
## About Copying

### When setting mount films and strip films in the film holders

| | Mount films (using the slide holder) | Strip films (using the film strip holder) |
|---|---|---|
| Area of film that can be copied |  |  |
| Copy size (copying full size) |  |  |

### When setting wide films with the film position sheets

❒ Narrow margins (about 0.5 mm) on all four sides will not be copied as shown in the illustration.




| Film size | A | B |
|---|---|---|
| 60 × 45mm | 59mm | 44.6mm |
| 60 × 60mm | 59mm | 59mm |
| 60 × 70mm | 59mm | 72mm |
| 60 × 80mm | 59mm | 79mm |
| 60 × 90mm | 59mm | 86mm |
| 4" × 5" | 97mm | 122mm |
| Maximum | 142mm | 210mm |

## Notes For Operation

❒ First, you must perform shading to get the projector to register the condition of the film. This way, the projector can adjust the light intensity automatically while copying.

❒ If you press the **Clear Modes/Stand by** key while using Projector function, all operations with the Projector will be canceled.

❒ You can adjust the color balance and color density manually.

❒ This projector has an automatic focus function, but if you use the glass mount film holder, adjust the focus manually.

❒ Do not forget to turn off the power switch of the projector when you are not using it.

❒ Do not obstruct the light path from the projector. If the light path is obstructed, the image might not match the original.

❒ This shading adjustment is very sensitive, so after the shading operation the mirror unit must be left perfectly still. Do not move it or allow vibrations to interfere with it. If this happens during copying, lines might appear on the copy. In that case, you must perform shading again.

❒ If you need to open and close the doors (to clear a jam or add toner), we recommend that you perform shading again afterwards.

❒ Avoid multi-wiring. The projector should be connected to a power source as described on the inside of the front cover.

# HOW TO COPY FROM FILM

The outline procedure for making copies is given below. Refer to the rest of this section for details of each step.

1 Position the projector. ☛ See page 145.

2 Prepare the film. ☛ See page 146.

3 Select the film type and perform shading. ☛ See page 149.

4 Adjust color, density, and focus. ☛ See page 156.

5 Select modes. ☛ See page 159.

6 Press the **Start** key.

7 Choose next job. ☛ See page 160.

# POSITIONING THE PROJECTOR

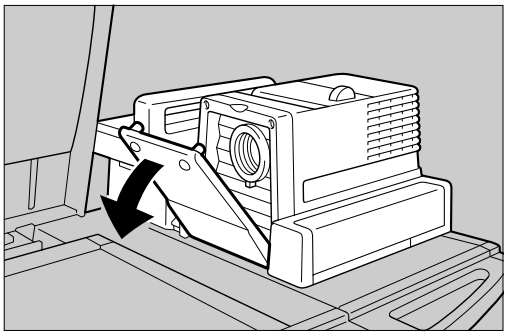
❒ Do not touch the fresnel lens or the glass on the mirror unit. Fingerprints or dirty parts might appear on the copy. If the fresnel lens becomes dirty, wipe it. ☛ See page 164.

1. Plug the projector into the wall outlet.

❒ Read the notes regarding the power cord. ☛ See the inside page of the front cover.

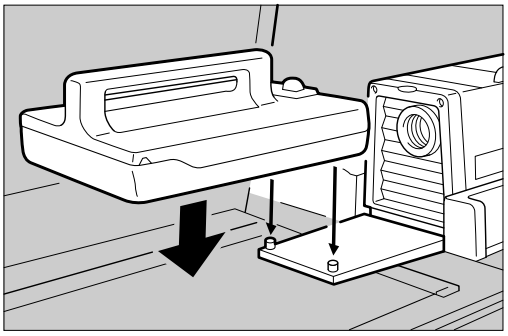
2. Turn on the main switch of the projector.

3. Lift the platen cover or the optional dual job feeder and lower the projector lens cover.

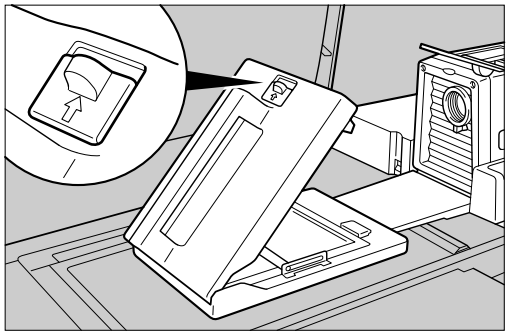


4. Place the mirror unit so that the unit's position holes fit over the projector's positioning pins.

❒ Please be careful not to scratch the exposure glass when setting the mirror unit on it.



5. Slide the mirror unit release lever in the direction of the arrow and open the mirror unit cover.



# PREPARING THE FILM

Check this table to find out the key you should use for your film type.

| Film Type | | | Filter | Base Film | Positioning Sheet | Holder | Key To Select |
|---|---|---|---|---|---|---|---|
| 35 mm | Positive | Slide (Mount) | **"P"** (Positive Filter) | × | × | Slide Holder | 35 mm Slides Positive |
| | | Slide (Glass Mount) | **"P"** (Positive Filter) | × | × | Glass Mount Film Holder | 35 mm Slides Positive |
| | | Strip Film | **"P"** (Positive Filter) | × | × | Film Strip Holder | 35 mm Slides Positive |
| | Negative | Strip Film | **"N"** (Negative Filter) | v | × | Film Strip Holder | 35 mm Strip Negative |
| Others Max. Size: 142 × 210 mm 5.5" × 8.2" | Positive | | **"P"** (Positive Filter) | × | v | × (Place on the exposure glass) | Positive Film on glass |
| | Negative | | **"N"** (Negative Filter) | v | v | × (Place on the exposure glass) | Negative Film on glass |

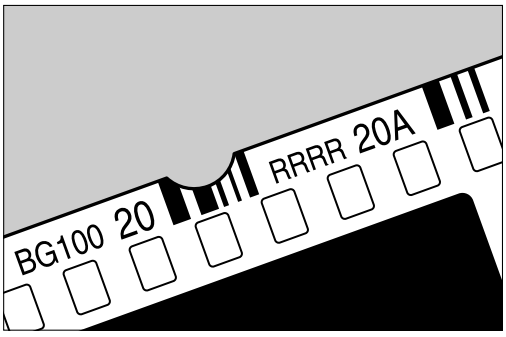
When performing shading, you must set a filter that matches that type of film you will copy.

Use an "N" filter for Negative films and a "P" filter for Positive films.

## Selecting The Base Film (If Needed)

❒ When you use negative film for copying, use that film's appropriate base film for shading.

1 Confirm the manufacture, model name, and ASA rating of the film you want to use.



**2** Select a base film suitable for the film to copy.

❒ The following base film slides have been prepared as accessories.

- For FUJICOLOR (registered trademark of FUJI PHOTO COMPANY LIMITED.)
- For AGFA (registered trademark of AGFAGEVAERT AG.)
- For KODAK (registered trademark of EASTMAN KODAK COMPANY.)

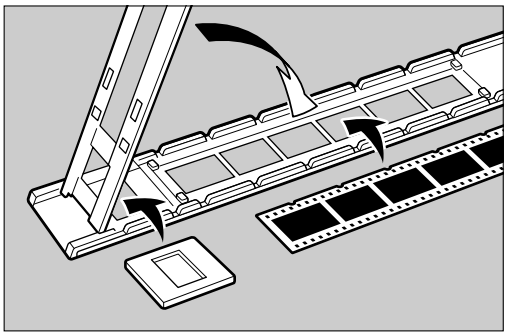
❒ If you use film that does not have suitable base film, you should make the base film yourself. ☛ See page 162.

**3** Open the film strip holder and set the base film in the film strip holder.

❒ The base film must be set sideways in the strip holder.

❒ There is no difference between both sides of the base film.

❒ You can set the negative strip film at the same time. ☛ See page 148.



**4** Close the holder and lock it as shown in the illustration.

## Setting Films In The Holder (If Needed)

Check which type of holder you should use. ☛ See page 146.

### Slide Holder/Glass Mount Film Holder

❒ The slide holder is covered with glass. Set the mount films in the slide holder.

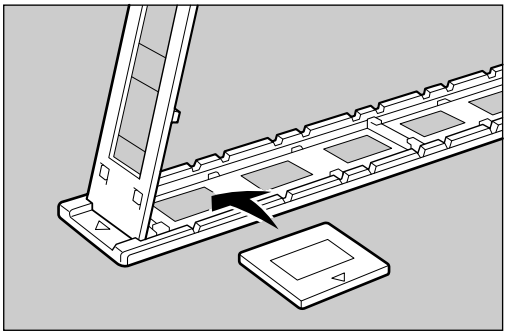
❒ The glass mount film holder is not covered with the glass. Set the glass mount films (covered by glass) in the glass mount film holder.

❒ Positive films are usually set in a slide mount or glass mount. If you use positive film not set in a mount, set it in the film strip holder. ☛ See page 148.

**1** Open the cover of the slide holder or glass mount film holder, and set the slides in the holder one by one.

❒ Set the front side of the film face down when setting in the slide holder or glass mount film holder.

❒ When setting in the slide holder, make sure that all slides are aligned with the glass of the slide holder cover.



**2** Close the holder and lock it.

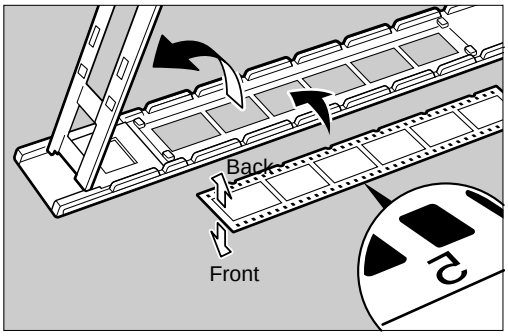
## Film Strip Holder

❒ Negative film usually come in stripes.

❒ Follow this procedure for positive strip film as well.

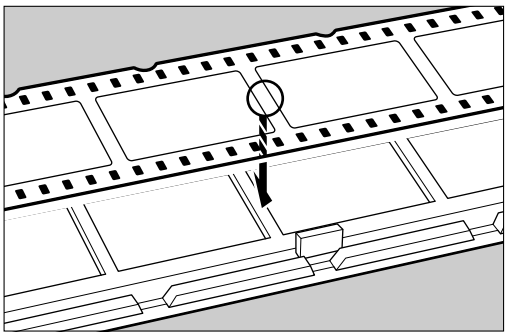
**1** Open the film strip holder. Put the front side of the film face down and set it in the film strip holder.

❒ When setting film, leave the base film in the film strip holder. This is convenient when performing shading again.




**2** Adjust the position of the film.

❒ Do not touch the image parts of the film when adjusting.

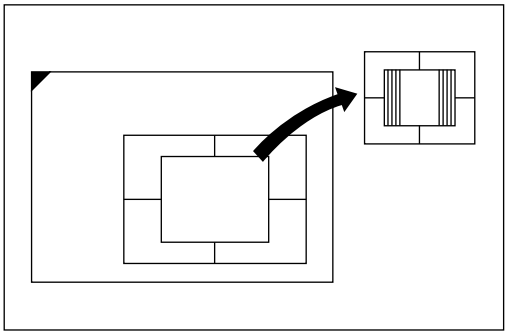


**3** Close the film strip holder and lock it .

## Cutting The Film Position Sheet (If Needed)

If you do not use the holders and position the film on the exposure glass, a positioning sheet is required.

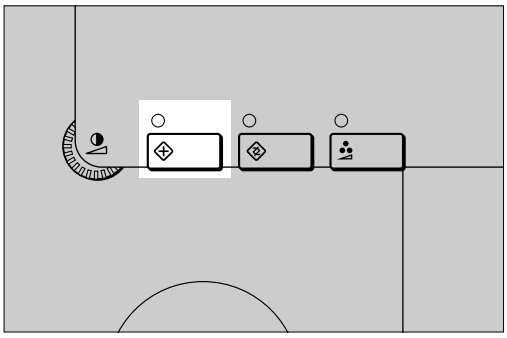
Make a copy of one of the positioning sheet originals and use it to make your own sheet. Cut a hole the size of the film from the center of the copy, then crop the sheet by cutting around the dotted lines.



# SELECTING THE FILM TYPE AND PERFORM SHADING

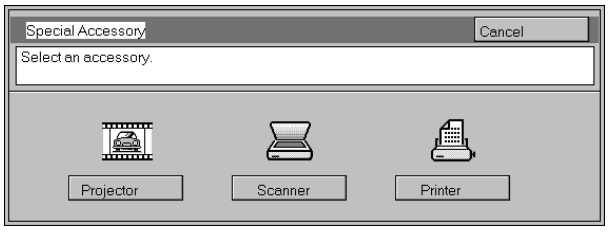
The procedures are different depending on the type of film.

**1** Press the **Special Accessory** Key.

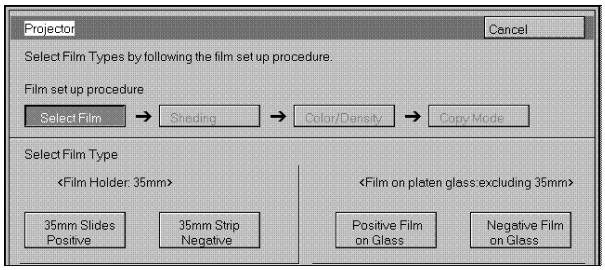


**2** Touch the **[Projector]** key.

❒ If the projector is not installed, or if the power switch of the projector is not on, the Projector key will not appear on the screen.




**3** Check the type of film and touch one of the keys.

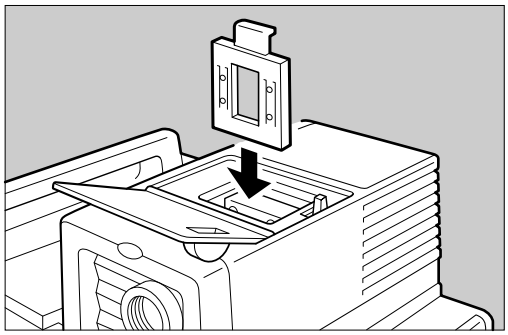



**4** Follow the shading procedure appropriate to your film type — see below.

| Film Type | | | Key To Select | Go To Page... |
|---|---|---|---|---|
| 35 mm | Positive | Slide (Mount) | [35 mm Slides Positive] | Page 150 |
| | | Slide (Glass Mount) | [35 mm Slides Positive] | Page 150 |
| | | Strip Film | [35 mm Slides Positive] | Page 150 |
| | Negative | Strip Film | [35 mm Strip Negative] | Page 151 |
| Others Max. Size: 142 × 210 mm 5.5" × 8.2" | Positive | | [Positive Film on glass] | Page 152 |
| | Negative | | [Negative Film on glass] | Page 154 |

# 35 mm Slides Positive (Slide Holder/Mount Film Holder/Film Strip Holder)

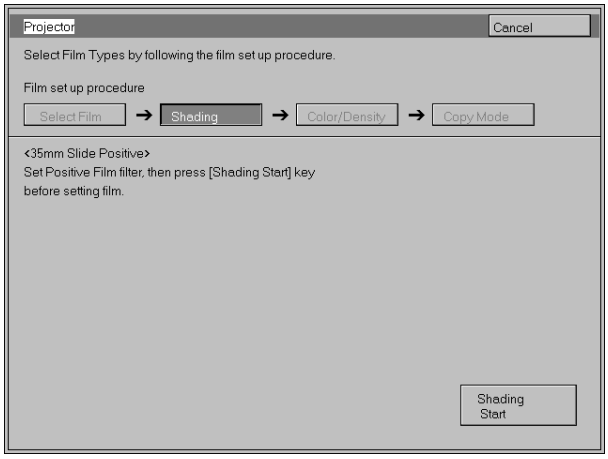
1 Open the film cover and insert the **"P"** (Positive) filter firmly in the left slot as shown in the illustration.



❒ Be careful to insert the filter as shown, not the other way around.

❒ Before going to the next step, make sure that fresnel lens is lowered in position.

2 Touch the **[Shading Start]** key.

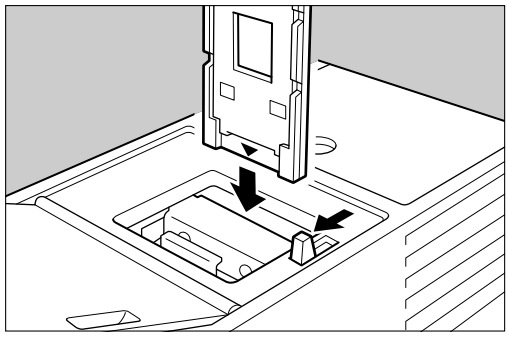



❒ The copier will start shading automatically.

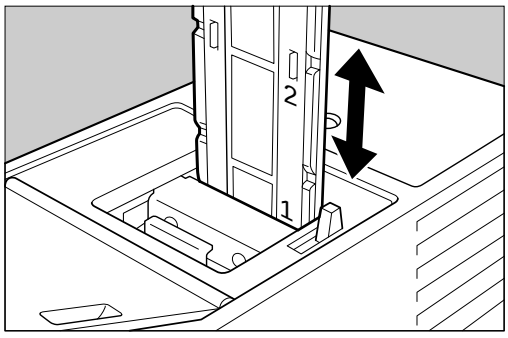
3 Set the film (slide or strip) in the holder.

❒ Regarding setting the film, ☛ see page 147.

4 While pressing the holder lever to the left, rest the holder in the right slot.



5 Adjust the holder by sliding it up and down to position the correct frame for copying.




6 If needed, adjust the color, density, or focus.

❒ For details, ☛ see page 156.

7 If needed, select the copier modes.

❒ For details, ☛ see page 159.

8 Press the **Start** key.

9 Choose your next job.

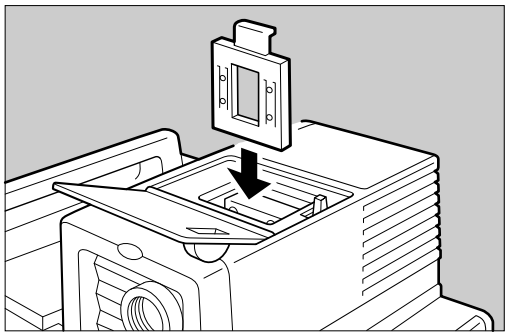
❒ For details, ☛ see page 160.

## 35 mm Strip Negative (Film Strip Holder)

1 Insert the **"N"** (Negative) filter in the left slot as shown in the illustration.

❒ Be careful to insert the filter as shown, not the other way around.

❒ Before going to the next step, make sure that the fresnel lens is lowered in position.



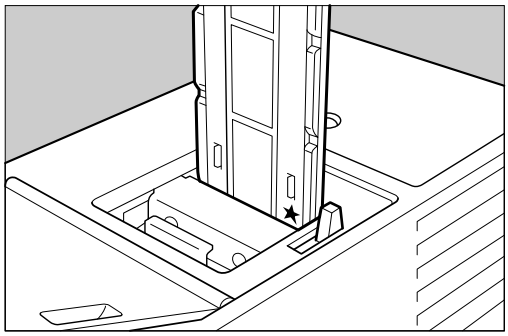
2 Set the base film and film strip in the holder.

❒ Regarding setting the base film, ☛ see page 146.

❒ Regarding setting the film strip, ☛ see page 148.

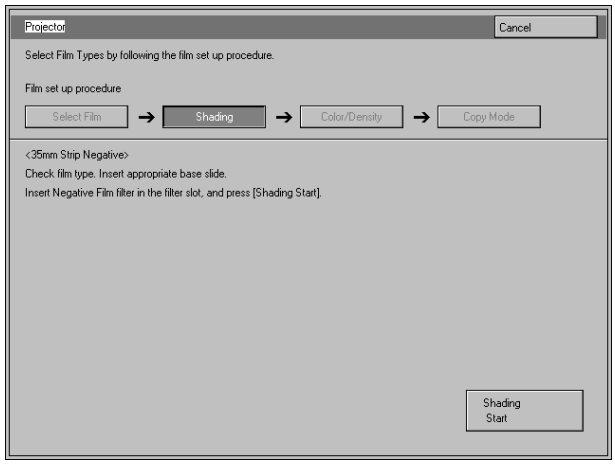
3 Open the film cover and while pressing the holder lever to the left, rest film strip holder the right slot.

4 Insert the holder until the ; mark is placed as shown in the illustration.



5 Touch the **[Shading Start]** key.

❒ The copier will start shading automatically.



6 Adjust the holder by sliding it up and down to position the correct frame for copying.

7 If needed, adjust the color, density, or focus.

❒ For details, ☛ see page 156.

8 If needed, select the copier modes.

❒ For details, ☛ see page 159.

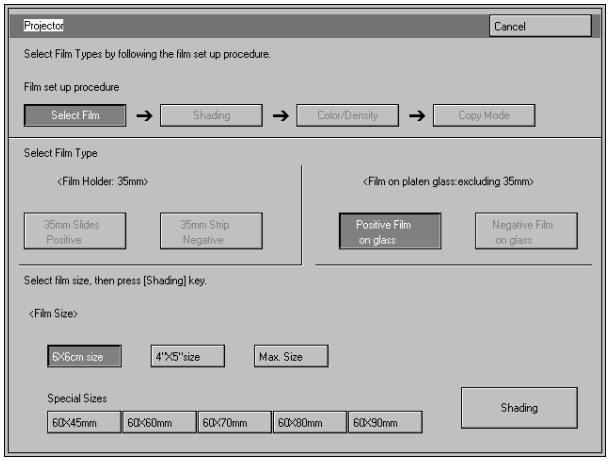
9 Press the **Start** key.

10 Choose your next job.

❒ For details, ☛ see page 160.

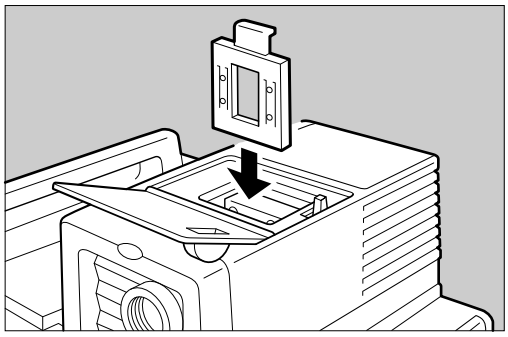
## Positive Film On Glass

1 Select the film size, then touch the **[Shading]** key.




2 Insert the **"P"** (Positive filter) in the left slot as shown in the illustration.

❒ Be careful to insert the filter as shown, not the other way around.



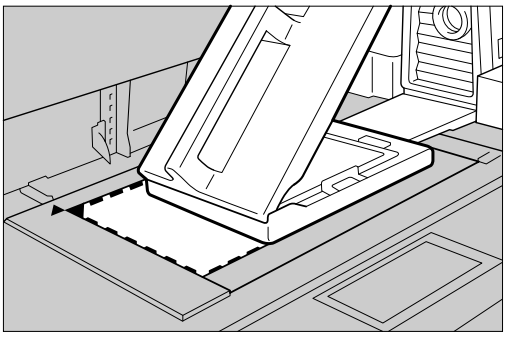
3 Cut the positioning sheet to match the film size.

❒ Regarding the positioning sheet, ☛ See page 148.

**4** Place the positioning sheet under the mirror unit (on the exposure glass).

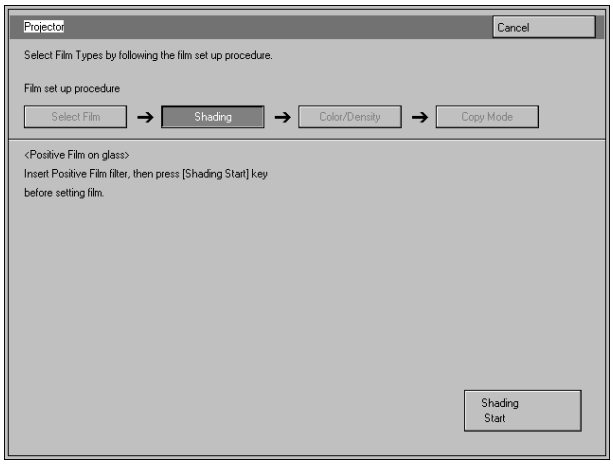
❒ Place the marked corner of the film position sheet at the rear left corner of the exposure glass.

❒ Before going to the next step, make sure that the fresnel lens is lowered in position.



**5** Touch the **[Shading Start]** key.

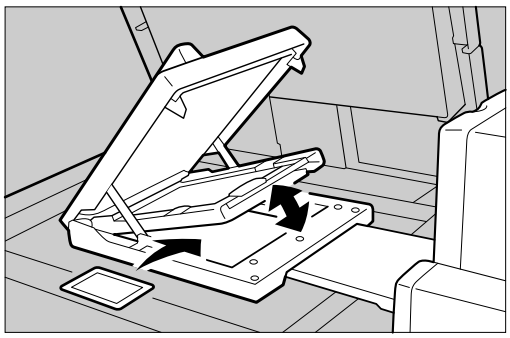
❒ The copier will start shading automatically.




**6** Lift the fresnel lens, place the film inside the film position sheet, and lower the fresnel lens.

❒ Place the film face down.

❒ If the film is curled, the copy image may be out of focus. In this case, make the cutout film position sheet a little smaller than the film size and use it to hold the film down.



**7** If needed, adjust the color, density, or focus.

❒ For details, ☛ see page 156.

**8** If needed, select the copier modes.

❒ For details, ☛ see page 159.

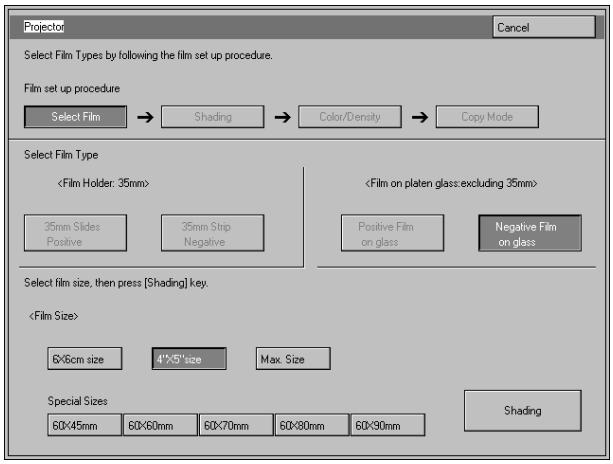
**9** Press the **Start** key.

**10** Choose your next job.

❒ For details, ☛ see page 160.

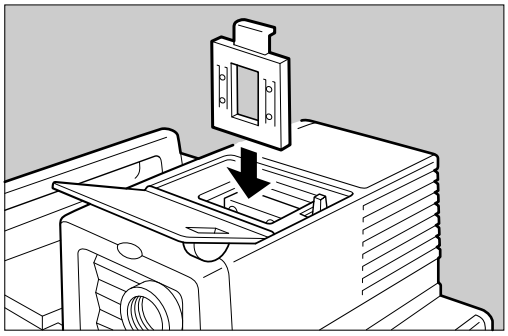
## Negative Film On Glass

1 Select the film size, then touch the **[Shading]** key.




2 Insert the **"N"** (Negative) filter in the left slot as shown in the illustration.

❒ Be careful to insert the filter as shown, not the other way around.



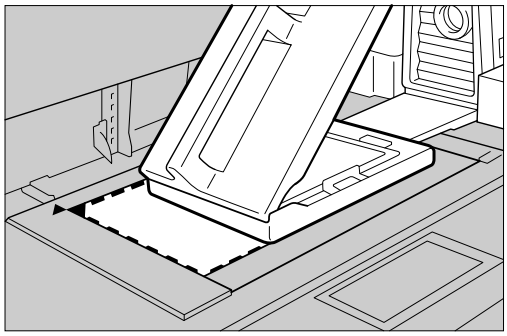
3 Cut the positioning sheet to match the film size.

❒ Regarding the positioning sheet, ☛ See page 148.

4 Place the positioning sheet under the mirror unit (on the exposure glass).

❒ Place the marked corner of the film position sheet at the rear left corner of the exposure glass.

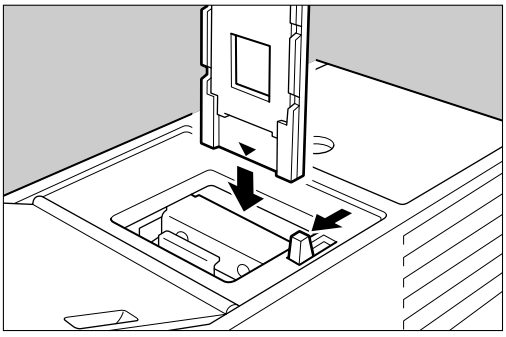
❒ Before going to the next step, make sure that the fresnel lens is lowered in position.



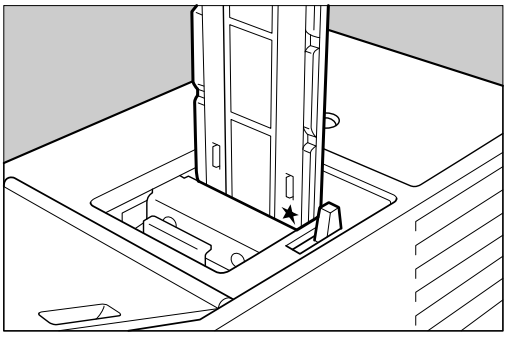
5 Set the base film in the film strip holder.

❒ Regarding setting the base film, ☛ See page 146.

6 Open the film cover and while pressing the holder lever to the left, rest the film strip holder in the right slot.

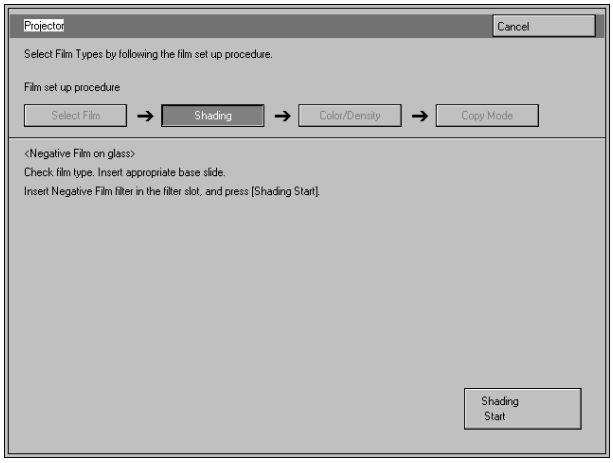


7 Insert the holder until the ; mark is placed as shown in the illustration.

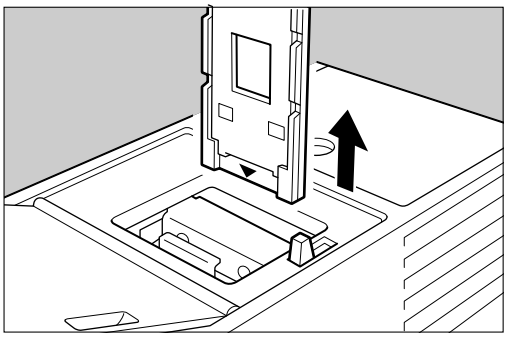


8 Touch the **[Shading Start]** key.

❒ The copier will start shading.



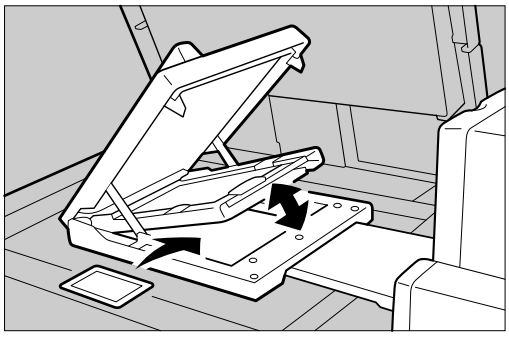

9 Pull out the film strip holder with the base film.



10 Lift the fresnel lens, place the film inside the positioning sheet, and lower the fresnel lens.

❒ Place the film face down.

❒ If the film is curled, the copy image may be out of focus. In this case, make the cut out film position sheet a little smaller than the film size and use it to hold the film down.



11 If needed, adjust the color, density, or focus.

❒ For details, ☛ see page 156.

12 If needed, select the copier modes.

❒ For details, ☛ see page 159.

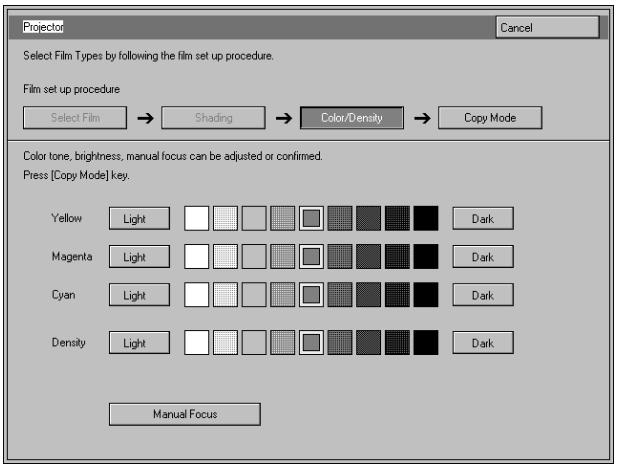
13 Press the **Start** key.

14 Choose your next job.

❒ For details, ☛ see page 160.

# ADJUSTING COLOR, DENSITY, AND FOCUS

After shading, you can adjust the color balance, image density, or manual focusing.




## Color Tones In Film Scanning

Use these modes when you want to adjust the overall color tone of copies. Also use these modes when you use negative film, because the color tone of copies varies with the film brand. You can adjust the tone of copies by adjusting Cyan, Magenta, and Yellow (three basic colors).

Adjust the color balance with the **[Light]** key and **[Dark]** key.

### Notes on color tone adjustments:

❒ If the color balance differs slightly from your image, you can also change the tones with the Single Color Adjustment (☛ See page 82) or Color Balance Adjustment (☛ See page 76) function.

❒ If dark parts are too black, change the UCR adjustment to level 3 (default = level 5). ☛ See page 83.

## Density Adjustment

❒ Density can be set not only with this display, but also as instructed on page 31 as Image Density Adjustment. However, when adjusting for the projector, we recommend you adjust the image density with this display.

Adjust the density with the **[Light]** key or **[Dark]** key.

# Adjusting The Color Tone/Brightness Using Negative Film

❒ With this function, the color tone becomes darker when you specify a smaller value, while it becomes lighter in the Color Balance Adjustment described on page 76.

❒ When you copy negative film, adjust the color tone (density of yellow, magenta, and cyan) and brightness (quantity of light) according to the table below. However, even when you use the same type of film, you must use different settings depending on the way the original picture is taken or developed. If you cannot make copies as you want, perform adjustment.

❒ You can also use the “Color Balance Adjustment” function of the copier to correct slight color difference.

☛ See page 76.

♦ The following table uses these values to indicate the color tone and brightness levels (the crosshatched values ( ) are the factory-shipped settings):

| | | | |
|---|---|---|---|
| Yellow (Y) | Darker | ← 1 2 3 4 5 6 7 8 9 | → Lighter |
| Magenta (M) | Darker | ← 1 2 3 4 5 6 7 8 9 | → Lighter |
| Cyan (C) | Darker | ← 1 2 3 4 5 6 7 8 9 | → Lighter |
| Brightness | Darker | ← 1 2 3 4 5 6 7 8 9 | → Lighter |

| Manufacturer | | FUJI | | | | | | Kodak | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Film type | | SUPER G *3 | | SUPER G ACE *4 | | | REALA *5 | SUPER Gold *6 | | | EKTAR *7 |
| ISO sensitivity | | 100 | 200 | 100 | 400 | 800 | 100 | 100 | 200 | 400 | 100 |
| Color | Y | 5 | 4 | 5 | 4 | 4 | 6 | 5 | 4 | 4 | 5 |
| | M | 5 | 6 | 5 | 6 | 6 | 5 | 5 | 4 | 6 | 5 |
| | C | 5 | 6 | 5 | 6 | 6 | 4 | 5 | 6 | 6 | 5 |
| Brightness *1 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Brightness *2 | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |

| Manufacturer | | Konica | | | | AGFA | | |
|---|---|---|---|---|---|---|---|---|
| Film type | | LV *8 | | | IMPRESA *9 | XRG *10 | | |
| ISO sensitivity | | 100 | 200 | 400 | 50 | 100 | 200 | 400 |
| Color | Y | 4 | 4 | 4 | 5 | 2 | 4 | 4 |
| | M | 7 | 7 | 7 | 5 | 6 | 7 | 7 |
| | C | 7 | 6 | 7 | 2 | 6 | 2 | 2 |
| Brightness *1 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Brightness *2 | | 4 | 4 | 4 | 4 | 4 | 4 | 4 |

- Brightness *1 should be used when film is set in the film holder.
- Brightness *2 should be used when film is set on the exposure glass (platen glass).

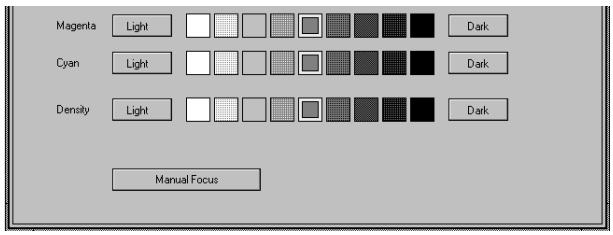
*3, *4, *5: These products are registered trademarks of Fuji Photo Film Co., Ltd.
*6, *7: These products are registered trademarks of Kodak Ltd.
*8, *9: These products are registered trademarks of Konica Corporation.
*10: This product is a registered trademark of Agfa Gevaert AG.

## Focus

❒ When setting the glass mount film holder, manual focus adjustment is required.

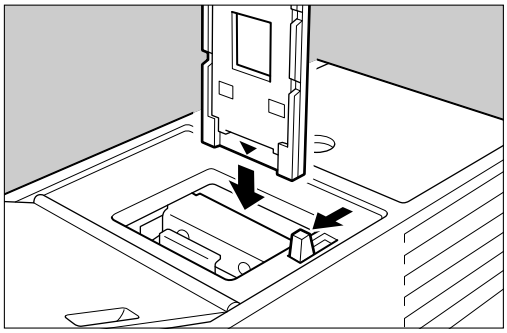
❒ You can adjust the focus manually for 35 mm film only.

1 Touch the **[Manual Focus]** key.

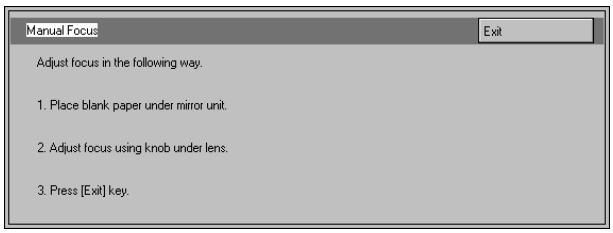



2 Place a blank piece of white paper under the mirror unit and adjust the focus with the focusing lever.

❒ After copying, return the focusing lever to the center.



3 Touch the **[Exit]** key.

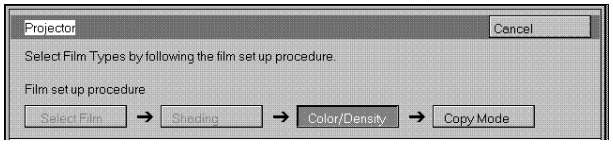

Manual Focus
Exit
Adjust focus in the following way.
1. Place blank paper under mirror unit.
2. Adjust focus using knob under lens.
3. Press [Exit] key.

# SELECTING MODES

You can select copier modes with the projector.

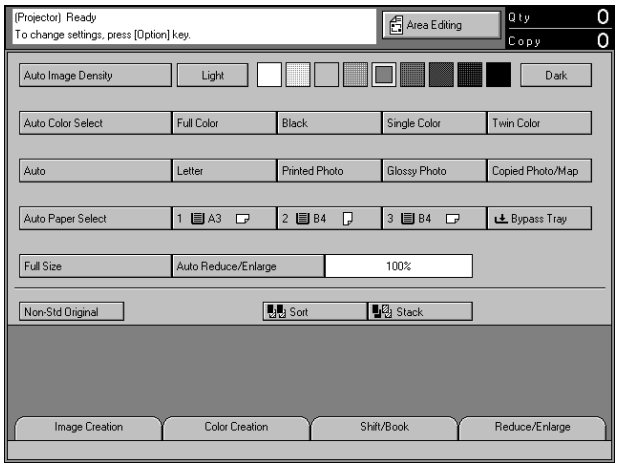
❒ Regarding the modes that cannot be selected with the projector, ☛ see page 73.

1 After shading, touch the **[Copy Mode]** key.




2 Select the modes.

❒ This operation is the same as that described in the “Copying” chapter.




3 Press the **Start** key.

# CHOOSING NEXT JOB

After copying, you can select the next job:

**[Select Film]**

If you want to change the type of film, touch this key.

**[Shading]**

If the mirror unit is moved, or if some lines appear on the copy, touch this key and perform shading again.

**[Color/Density]**

If you want to adjust the color tone, image density, or adjust the focus manually, touch this key.

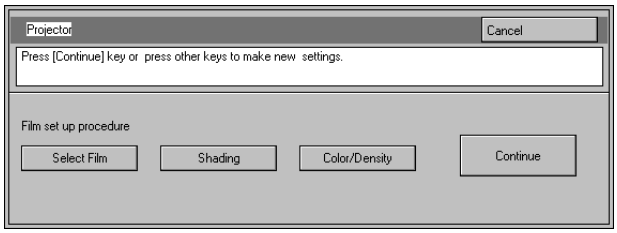
**[Continue]**

If you want to copy the same film again, or if you want to copy another film which is of the same type, touch this key.

**[Continue]**

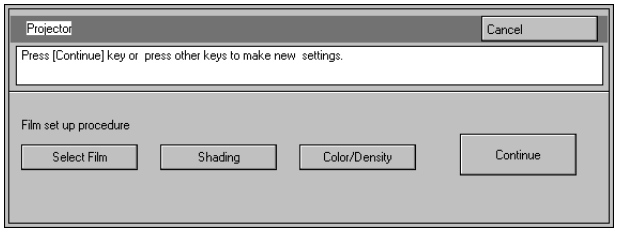
If you want to finish using the projector, touch this key.

1. Press the **Special Accessory** key.
2. Select the key.



# EXITING PROJECTOR MODE

1 Touch the **[Cancel]** key.

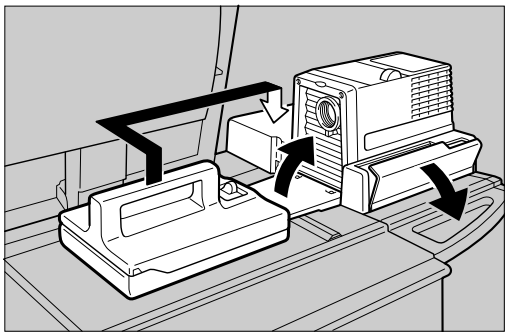



2 Replace the mirror unit to its original position.

❒ Be careful not to touch the fresnel lens. If you do touch it, clean it. ☛ See page 164.

3 Return the holders, filters, and other accessories to the accessory box.

4 Close the lens cover.



5 Turn off the power switch.

❒ Though the power switch is turned off, the cooling fan may be still working. Therefore, please wait a few moments before unplugging the power cord.

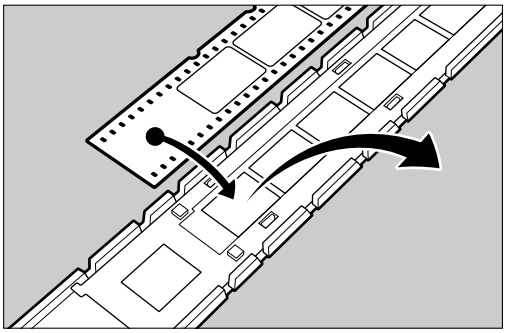
# WHAT TO DO IF SOMETHING GOES WRONG

### 1. If the color balance is not right

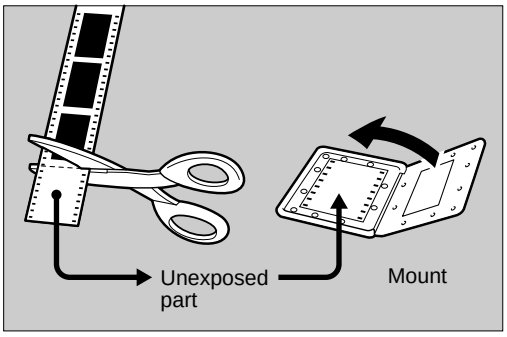
❒ If the color density leans to red or blue, or isn't properly balanced, perform the color density adjustment, and the color balance adjustments for Yellow, Magenta, and Cyan. ☛ See page 156.

### 2. If the film you want to copy does not match the types of base film included.

❒ If you do not plan on copying from this type of film often, use an unexposed frame of the same film strip, if available, when performing shading.



❒ If you plan on copying from this type of film often, make a base slide using an unexposed, developed frame of the film.




❒ If you have no blank unexposed frame of the same type of film, you can use an unexposed frame from film produced by the same company, but the colors might differ a bit.

### 3. If the copy image is out of focus.

❒ Check if the image on the film is focused or not. If it is, make sure the film is correctly set in the holder.

❒ If you reset the film correctly in the holder and the image is still out of focus, or if you use a different image, and the copy image is out of focus in every case, please call your service representative.

❒ You can adjust the focus manually with the focusing lever. ☛ See page 158.

### 4. If the edge of the original image does not appear on the copy.

❒ Check the size of the area that can be copied. ☛ See page 142.

❒ When setting film in the holder, be sure to position the desired frame properly.

❒ To extend the area that can be copied, use the glass mount film holder and focus manually.

### 5. If the projection lamp does not light.

❒ If the projection lamp does not light and a service message appears on the screen, the lamp might be burned out. In this case, please call you service representative.

### 6. If you move the mirror unit.

❒ Perform the shading operation once again.

### 7. If lines appear on the copy.

❒ Perform the shading operation again.

❒ Some possible causes are:

1. A long time has passed since shading.
2. Many copies were made since shading and the mirror unit has moved due to copier operation.
3. Someone might have leaned on the machine or put something on it.

❒ If copying from negative film, thin black lines might-appear on the lighter part of the copy, even after shading.

### 8. Black lines appear on the edge.

❒ These lines are shadows caused by the film holder and cannot be eliminated.

❒ If your machine is Edit type, you can improve this by saving the area. ☛ See page 101.

### 9. If a ring pattern appears on the copy.

❒ The ring pattern is present on the film itself, and the copier is sensitive enough to pick it up. Try to change the film setting direction. Adjusting the focusing lever so that the image is slightly out of focus will eliminate most of the pattern.

❒ Also, try the following:

- Open and close the film cover.
- Slide the film in the holder a bit.
- Turn the film around in the holder. (Do not flip it over.)

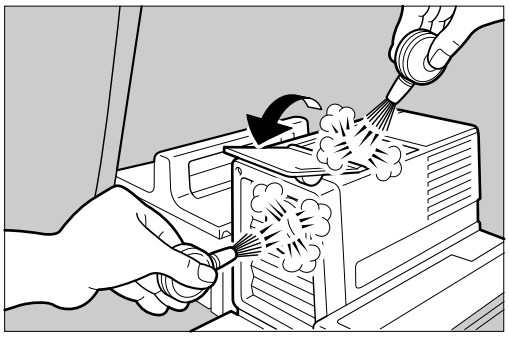
# DAILY MAINTENANCE

## Exterior

Wipe with a dry soft cloth.

## Lens

Blow off any dust using the blower brush. If there are fingerprints on the lens, wipe them with a soft cloth.

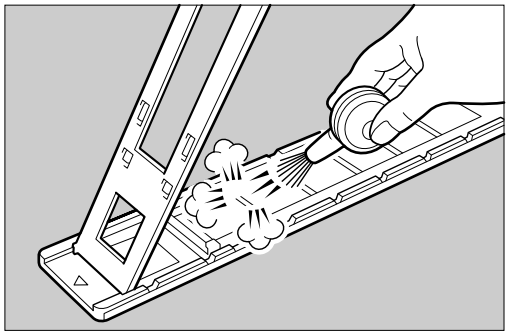


## Film Holder

Blow off any dust using the blower brush. If there are fingerprints on the glass, wipe with a soft cloth.

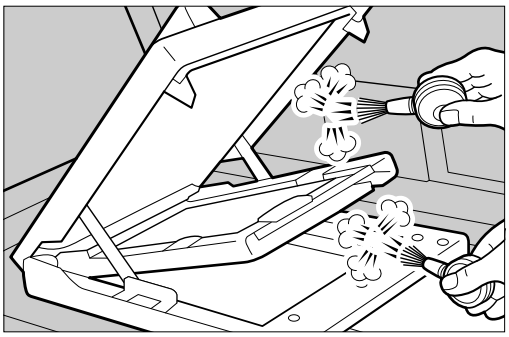
## Holder Slot

Blow off any dust using the blower brush.



## Mirror Unit

Blow off any dust using the blower brush. If there are fingerprints on the glass, wipe with a soft cloth.



# SPECIFICATION

# COPIER

**Configuration:** Console

**Process:** Dry electrostatic transfer system

**Resolution:** 400 dpi

**Gradations:** 256 gradations

**Originals:** Sheet, book, objects

**Original size:** Maximum: A3, 11" × 17"

**Copy paper size:**
Trays 1 and 2: See page 124.
Tray 3: ▭: A3, B4, A4, B5, A5, 11" × 17", 11" × 15", 10" × 14", 8 1/2" × 14", 8 1/2" × 13", 8 1/2" × 11", 8 1/4" × 13", 8" × 13", 8" × 10 1/2", 8" × 10", 5 1/2" × 8 1/2"
▯: A4, B5, A5, 8 1/2" × 11", 8 1/2" × 5 1/2"

Bypass feed table: See page 37.

**Copy paper weight:**
Paper tray: 64 ~ 104.7 g/m², 17 ~ 28 lb
Bypass feed table: 64 ~ 157 g/m², 17 ~ 42 lb
(When you use paper heavier than 104.7 g/m², 28 lb, use the bypass feed table and select Thick Paper mode.)

**Copy paper capacity:**
Three 500-sheet trays (Trays 1, 2, and 3)
Bypass feed table (50 sheets)

**Copying speed:**

| | Standard mode | OHP/Thick paper mode |
|---|---|---|
| Full color (4 scans) | 6 copies/minute (A4▯, 8 1/2" × 11"▯) | 5 copies/minute (A4▯, 8 1/2" × 11"▯) |
| | 3 copies/minute (A3▭, 11" × 17"▭) | 2.5 copies/minute (A3▭, 11" × 17"▭) |
| Single color (Black, Yellow, Magenta, Cyan) | 31 copies/minute (A4▯, 8 1/2" × 11"▯) | 10 copies/minute (A4▯, 8 1/2" × 11"▯) |
| | 15 copies/minute (A4▯, 8 1/2" × 11"▯) | 5 copies/minute (A4▯, 8 1/2" × 11"▯) |
| Single color (Red, Green, Blue, Orange, Light Green) | 10 copies/minute (A4▯, 8 1/2" × 11"▯) | 7.7 copies/minute (A4▯, 8 1/2" × 11"▯) |
| | 5 copies/minute (A4▯, 8 1/2" × 11"▯) | 3.8 copies/minute (A4▯, 8 1/2" × 11"▯) |

(When full size copying)

**First copy time:**

| | Standard mode | OHP/Thick paper mode |
|---|---|---|
| Full color (4 scans) | 15.5 seconds | 19.5 seconds |
| Single color (Black, Yellow, Magenta, Cyan) | 8.8 seconds | 13 seconds |
| Single color (Red, Green, Blue, Orange, Light Green) | 11.5 seconds | — |

(A4▯, 8 1/2" × 11"▯, when setting an original on the exposure glass and full size copying)

**Non-reproduction area:**
Leading edge: 5±2 mm, 0.2" ±0.08"
Trailing edge: 2±2 mm, 0.08" ±0.08"
Side: 2±2 mm, 0.08" ±0.08" (Total less than 4 mm, 0.16")

**Toner replenishment:** Bottle type (340 g/bottle)

**Copy tray capacity:** 100 sheets (81.2 g/m$^2$, 22 lb)

**Power source:** See the inside front cover of this manual.

**Warm-up time:** About 8 minutes (20°C, 68°F)

**Reproduction ratios:** 5 enlargement and 7 reduction

| | Metric version | Inch version |
|---|---|---|
| Enlargement | 400% | 400% |
| | 200% | 200% |
| | 141% | 155% |
| | 122% | 129% |
| | 115% | 121% |
| Full size | 100% | 100% |
| Reduction | 93% | 93% |
| | 82% | 85% |
| | 75% | 77% |
| | 71% | 74% |
| | 65% | 65% |
| | 50% | 50% |
| | 25% | 25% |

**Power consumption:**

| | Copier only | Full system* |
|---|---|---|
| Warm up | 1.40 kW | 1.40 kW |
| Stand-by | 0.93 kW | 0.95 kW |
| Copying | 1.20 kW | 1.25 kW |
| Maximum | less than 1.5 kW | less than 1.5 kW |

* Full system: Copier with the dual job feeder and the sorter.

**Noise Emission:** Sound pressure level (The measurements are made according to ISO 7779 at the operator position.)

| | Copier only |
|---|---|
| Stand-by | less than 42 dB (A) |
| Copying | less than 56 dB (A) |

Sound power level (The measurements are made according to ISO 7779.)

| | Copier only |
|---|---|
| Stand-by | less than 59 dB (A) |
| Copying | less than 69 dB (A) |

**Dimensions:**

| | Width | Depth | Height |
|---|---|---|---|
| Copier only (with platen cover) | 692 mm, 27.3" | 713 mm, 28.1" | 1,026 mm, 40.4" |
| Copier with the bypass tray opened and the copy tray | 1,258 mm, 49.6" | 713 mm, 28.1" | 1,026 mm, 40.4" |
| Full system (with the dual job feeder and the sorter) | 1,222 mm, 48.2" | 713 mm, 28.1" | 1,099 mm, 43.3" |

**Weight:**

Copier only: less than 200 kg, 440.9 lb (Without toner bottle)

Full system: 236.5 kg, 521.4 lb (With dual job feeder and a sorter)

**Optional equipment:**

Dual job feeder
Sorter
Sorter Adapter
Film Projector Unit
Holder for Film Projector Unit
Key counter
Interface kit for controller

❒ Specifications are subject to change without notice.

# DUAL JOB FEEDER (Option)

| | |
|---|---|
| **Original Feed:** | Automatic reverse document feed - ARDF mode<br>Automatic document feed - ADF mode<br>Semi-automatic document feed - SADF mode |
| **Original size:** | Maximum: A3 ▭, 11" × 17"▭<br>Minimum: B6 ▭, 5 1/2" × 8 1/2"▭ |
| **Original weight:** | SADF mode, ADF mode: 40 ~ 128 g/m², 11 ~ 34 lb<br>ARDF mode: 52 ~ 104 g/m², 14 ~ 28 lb<br>Different sized originals feeding mode : 52 ~ 80 g/m², 14 ~ 21 lb |
| **Maximum number of originals to be set:** | 50 sheets (80 g/m², 20 lb) (Maximum stack height: 5mm) |
| **Original set:** | Face up, First sheet on top |
| **Original transport:** | One flat belt |
| **Copying speed:** | 6 copies/minute (A4▭, 8 1/2" × 11"▭, full color, full size copying)<br>31 copies/minute (A4▭, 8 1/2" × 11"▭, black , full size copying) |
| **Power source:** | From copier |
| **Power consumption:** | 0.07 kW |
| **Weight:** | 14.5 kg, 32.0 lb |
| **Dimensions (W × D × H):** | 680 × 522 × 133 mm, 26.8" × 20.6" × 5.3" |

❒ Specifications are subject to change without notice.

# SORTER (Option)

| | |
|---|---|
| **Paper size for bins:** | Sorting: See page 71.<br>Stacking: See page 72. |
| **Paper weight for bins:** | Sorting: See page 71.<br>Stacking: See page 72. |
| **Bin capacity:** | Sorting: See page 71.<br>Stacking: See page 72. |
| **Number of bins:** | 15 bins + interruption bin (total 16 bins) |
| **Top bin capacity:** | 150 sheets (80 g/m², 20 lb) |
| **Interrupt bin capacity:** | 100 sheets (80 g/m², 20 lb) |
| **Power source:** | From copier |
| **Power consumption:** | 0.03 kW |
| **Weight:** | 22 kg, 48.5 lb |
| **Dimensions (W × D × H):** | 499 × 535 × 600 mm, 19.7" × 21.1" × 23.7" |
| **Interface requirement:** | A sorter adaptor is needed. |

❒ Specifications are subject to change without notice.

# PROJECTOR UNIT (Option)

**Acceptable film types:**

Type: Positive film, Negative film

Size: 35 mm
Others: 60 × 45 mm, 60 × 60 mm, 60 × 70 mm, 60 × 80 mm, 60 × 90 mm, 4" × 5"
Max: 140 × 210 mm, 5.5" × 8.2"

Mount: Yes (Up to 5 frames can be set in a film holder.)

Strip: Yes (A series of 6 frames can be set in a film holder.)

**Focusing:** Fixed/Manual

**Effective film area:**

| 35 mm | | | Other sizes |
|---|---|---|---|
| Mount film | Glass mount film | Strip film | |
| Minimum<br>21.5 × 33.0 mm | Minimum<br>21.5 × 33.0 mm | Minimum<br>23.0 × 34.0 mm | Full size |

**Projection ratio:**
35 mm: Approx. × 6
Other sizes: × 1

**Copy image size:**
35 mm mount: 124 × 195 mm
35 mm strip: 133 × 200 mm
Other sizes: Full size
(The reproduction features of the copier are available.)

**Power source:** See the inside front cover of this manual.

**Power consumption:** Maximum: 0.185 kW

**Weight:**
Projector: 10 kg, 22.1 lb
Mirror unit: 5 kg, 11.1 lb

**Dimensions (W × D × H):**
Projector: 300 × 442 × 212 mm, 11.9" × 17.5" × 8.4"
Mirror unit: 298 × 232 × 50 mm, 11.8" × 9.2" × 2.0"

**Remarks:** The holder is required for installation.

❒ Specifications are subject to change without notice.